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ABSTRACT

The Communication Theory and Method Division section of the proceedings contains the following 16 papers: "Profiling TV Ratings Users: Content-Based Advisories and Their Adoption" (Robert Abelman and David Atkin); "It's All About the Information: Salience Effects on the Perceptions of News Exemplification" (Francesca R. Dillman Carpentier, Hong-Sik Yu and Coy Callison); "Conceptualizing and Testing the Construct 'Impactiveness': Analyzing the Effect of Visual Stimuli Eliciting Eye-Fixations, Orienting Responses and Memory-Stored Images on Ad Recall" (Fiona Chew and Jay Sethuraman); "Issues in Qualification of Electronic Internet-Based Sources for Academic and Business Historical Research" (Alexander Gorelik and Jodie Peeler); "An Effect Model of Political News and Political Advertising: The 1996 Presidential Election" (Mahmoud A. M. Braima, Thomas J. Johnson and Jayanthi Sothirajah); "Press-State Relations: A Critical Reappraisal" (Hong-Won Park); "The Ideological Dimensions of Stereotyping in the Media: Toward a Conceptual Clarification" (Rick Clifton Moore); "Modeling Information Seeking, Exposure and Attention in an Expanded Theory of Reasoned Action" (Craig W. Trumbo); "Support of the Film Industries in France and Italy in the Late 1990s" (Joseph D. Denny); "The Theory Is the Press: A View of the Press as Developer of Informal Theory" (Robert Pennington); "Media Influences on Voter Learning, Cynicism, and the Vote in an Off-Year Issue Election" (Glenn Leshner and Maria E. Len-Rios); "Political Distance and Message Desirability: Three Studies of Political Advertising and the Third-Person Effect" (Patrick Meirick); "Substantive and Affective Attributes on the Corporate Merger Agenda: An Examination of Second-Level Agenda-Setting Effects" (Joon-Soo Lim); "Optimistic Bias and the Third-Person Effect: Public Estimations of Y2K Effects on Self and Others" (Michael B. Salwen and Michel Dupagne); "Effects of Communication on Economic and Political Development: A Time Series Analysis" (Kim A. Smith); and "Internet Use and Media Preferences of College Students" (Bonnie Bressers and Lori Bergen). (RS)

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PROFILING TV RATINGS USERS: CONTENT-BASED ADVISORIES AND THEIR ADOPTION

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PROFILING TV RATINGS USERS: CONTENT-BASED ADVISORIES AND THEIR ADOPTION

Abstract

In the aftermath of the ineffectiveness of the age-based MPAA television advisory ratings, this investigation examined parents' use of the content-based ratings in their decision-making. The parents most likely to utilize TV ratings information tended to fit the profile of the target audience formed by the literature and set by the television industry: infrequent mediators of their children's televiewing who are likely to employ a highly restrictive (deprivation-based) method of mediation, believe that television can have a significant impact on children, and are more concerned with behavioral- than cognitive-level effects. Their children tended to be young average and below-average academic achievers who were moderate-to-high consumers of television. Comparisons with those who embraced the age-based ratings and the possible ramifications of these findings with regard to V-chip technology are discussed.

PROFILING TV RATINGS USERS: CONTENT-BASED ADVISORIES AND THEIR ADOPTION

In response to long-running complaints by parents groups, child activist organizations, and congressional policy makers about inappropriate content in child-consumed television programs, the commercial networks presented a warning in front of selected programs in the 1993 prime-time lineup. It stated: Due to some violent content, parental discretion is advised. The precautionary, rather than instructional, nature of the warning was met with general dissatisfaction (Mandese, 1993; Bushman & Stack, 1996) and complaints continued. In January 1996, the first major rewrite of communications regulation in 50 years was approved and included the provision that the television industry would develop and implement a more robust and informative television rating system that would give parents "the ability to block [offensive] programming" (Stern, 1996, p. 9).

In December 1996, Jack Valenti, chief executive of the Motion Picture Association of America (MPAA) and head of the ratings effort, presented an on-screen system that separated general entertainment programs on broadcast and cable television into four age-based categories and children's programming into two: TV-MA (mature audiences only); TV-14 (may be inappropriate for children under 14); TV-PG (parental guidance suggested); TV-G (suitable for all audiences), TV-Y7 (suitable for children 7 and older), and TV-Y (suitable for children of all ages). This rating system was implemented one month later and, shortly thereafter, came under intense criticism. The Parents Television Council--the entertainment-monitoring arm of the conservative media watchdog Media Research Center--pronounced the MPAA ratings "hopelessly vague" and "inconsistent" (Fleming, 1997a, p. 22). National Parent Teacher Association president Joan Dykstra called the industry's age-based system "confusing and insufficient" (Fleming, 1997b, p. 8) and void of "objective information about television content"

("Parents Want Content," 1996, p. 1). Senator Conrad Burns (R-Mont.), chairperson of the Communications Subcommittee, feared that parents would find the rating system counterproductive when attempting to influence their children's televiewing habits and practices (Aversa, 1997). Even Edward Markey (D-Mass.), father of the V-chip legislation that prompted the ratings, said that "the industry system doesn't give parents information they need to make appropriate decisions for their own kids, and it won't give them the choices they need to block programming" (Fleming, 1997a, p. 22).

Data confirming the rating system's general inadequacy and counter-productivity were reported. The Annenberg Public Policy Center, for example, found that almost two-thirds (65%) of parents were not using the ratings to guide their children's viewing (Bash, 1997; see Mifflin, 1997). An investigation funded by the cable industry, the National Television Violence Study (see Krcmar & Cantor, 1997), found that the age-based advisory system placed stress on decision-making rather than facilitating the process in many households and, thus, was quickly abandoned by parents. Greenberg, Rampoldi-Hnilo, and Ver Steeg (1998, pp. 30-31), in a study funded by the National Association of Broadcasters, found that respondents' "attention was low, their attitudes only marginally positive, [and] they seldom used the ratings."

Abelman (1999) profiled parents who were most and least likely to use the age-based advisories in their decision-making. He found that the parents who needed mediation assistance the least were the ones most likely to use ratings information. Their children were low-to-moderate consumers of television and average-to-high academic achievers. The parents themselves tended to employ a coordinated, communication-oriented style of child rearing, a discussion-based method of TV mediation, and believed that television could have both positive and negative effects on their children. Abelman also found that these parents incorporated ratings information into their discussions about television with their children, rather than use the information to restrict or block viewing of undesirable programs, as was their intended goal.

Parents who needed mediation assistance the most--that is, those who employed unfocused, nonuniform child rearing strategies, were typically uninvolved in their children's televiewing practices, and had children who were low-to-average academic achievers and heavy consumers of television--were least likely to use the ratings. "To date," noted the author (p. 544), "the TV Parental Guidance system has not been a resounding success. The MPAA has been preaching to the choir."

In response to the under-utilization of the age-based ratings system, legislative efforts to revamp the system were put into effect. In July 1997, most television programmers agreed to modify the age-based rating system by adding symbols to alert viewers about violent (V) and sexual (S) content, course language (L), suggestive dialogue (D), and fantasy violence (FV) (see Farhi, 1997; Ostling, 1997). Unfortunately, this effort has also fallen short of expectations. Kunkel, Farinola, Cope, Donnerstein, Biley, and Zwarun (1998), for example, reported an inconsistent application of the content ratings to programming, particularly in the areas of violence, sex, and adult language. Similarly, Greenberg, Eastin, and Mastro (in press) found that one of every four programs that should have had a rating, as identified in *TV Guide*, did not have one and 75 percent of the shows that did receive an age-based rating had no content descriptor. The Kaiser Family Foundation conducted several nation-wide surveys in 1998 to determine parents' awareness and knowledge of the content-based rating system by parents (Kaiser Family Foundation, 1999; Foehr, Rideout & Miller, in press). It found that nearly one-fifth (18%) of parents were unaware of the TV ratings and only half of those parents who were aware of the ratings reported actually using the system to guide their children's televiewing. In addition, the Kaiser surveys found that the age-based ratings with content information were more confusing to parents than were the age-based ratings without content. Similar findings were reported in Rampoldi-Hnilo and Greenberg (in press).

Although the relative failure of the content-based television rating system has been documented and parallels the general ineffectiveness of the age-based system, a comprehensive assessment of the actual use of the advisory ratings by a purported 40 percent of American households has yet to be conducted. It is not clear whether the new ratings are also "preaching to the choir" or if the desired goal of giving "parents the information they need to... block programming" (Fleming, 1997a, p. 22) is being met. This investigation replicates the research reported in Abelman (1999) but focuses on the content-based rating system, and attempts to profile the types of parents most likely to use the ratings in their decision-making and the manner by which ratings are incorporated into rules and regulations about television in the home. By doing so, parent and child attributes that facilitate the adoption of industry advisory interventions will be identified, offering insight into the likely impact of V-chip technology and success of future industry-initiated or government-sanctioned mediation strategies.

Parental Mediation

The theoretical assumption on which any media advisory system is based--that parents can directly impact their children's media use--is well grounded in the scientific literature. A substantial body of research indicates that parents have the potential to influence their children's media consumption patterns (Austin, 1980; Gunter & Svennevig, 1980; Krcmar, 1996; Nivin, 1960; Singer, Singer, Desmond, Hirsch, & Nicol, 1988), interpretations and acceptance of media content (Christenson, 1992; Clifford, Gunter, & McAleer, 1995; Davies, 1997; Krcmar, 1998), and the learning and performance of antisocial and prosocial behaviors portrayed in popular media content (Berry & Asamen, 1993; Brown & Bryant, 1990).

Although parents can affect their children's television use through intervention, few parents actually become directly involved in or actively exercise control over their children's selection, consumption, and interpretation of television information. Abelman (1991), Desmond, Singer, Singer, Calam, and Colimore (1985), McLeod, Atkin, and Chaffee (1972), and Steiner (1963), among others, discovered that less than half of the parents in their respective samples forbade exposure to certain "adult" or "offensive" shows, set bedtime limits on viewing, or made comments on the nature of the content being viewed. Researchers have found that as television set saturation (see Hefzallah, 1987), VCR usage (see Lindlof & Shatzer, 1990), channel number (see Kubey & Csikszentmihalyi, 1990), cable access (see Atkin, Greenberg, & Baldwin, 1991), and broadcast network options (see Andreasen, 1990; 1994) increased over the years, parental control over television and family co-viewing dramatically decreased. Desmond, Singer, and Singer (1990) noted that "parents and children reported instances of general and television-oriented mediation with a relatively high degree of reliability, and yet we observed few instances of such activity during our home visits" (p. 304).

Interestingly, several specific factors have been identified in the literature (see Abelman, 1990; Desmond, 1997) that help determine how much and which form of mediation is most likely to occur in a given household. Chief among them are child rearing practices, parental perceptions of television effects, children's cognitive abilities, children's television consumption levels, the gender of the parent/child, and the age of the child. Each of these factors offer insight into whether and how the new content-based television rating system would be used in the household and offer a potential profile of the most and least receptive users of the content-based rating system.

Child Rearing Practices

Two main categories of child rearing practices have been identified by Aronfreed (1969, 1976) and Hoffman (1970, 1975), and subsequently applied to parental mediation of television--induction and sensitization. The main difference between these two modes of child rearing is that induction is communication-oriented and sensitization is based on the exercise of actual or implied power. Inductive practices "tend to make the child's control of its behavior independent of external contingencies. In contrast, [sensitization] merely sensitizes the child to the anticipation of punishment" (Aronfreed, 1969, pp. 309-310). Induction techniques include the use of reasoning, explanation, and appeals to the child's pride and achievement, and they exert little external power over the child. Parents who engage in this form of discipline/child rearing typically point out to the child why one course of action may be better than another for the child's own well-being or because of effects on others. Sensitization "includes physical punishment, deprivation of material objects or privileges, the direct application of force, or the threat of any of these" (Hoffman, 1970, p. 285). Inductive and sensitizing techniques are often used in combination, to varying degrees.

Numerous studies have demonstrated that the type of child rearing practices (see, for example, Osofsky & Oldfield, 1972; Sigel, McGillicuddy-DeLisi, & Goodnow, 1992) and comparable disciplinary style (see, for example, Socha & Stamp, 1995) are related to children's social and moral behavior in general. Several mass communication researchers have determined that the interaction and socialization style of parents are related to children's use of television information in particular. Singer, Singer, and Rapaczynski (1984) found that parents who most regularly used high sensitization techniques in their child rearing had few rules about television. This finding also was evident in a follow-up investigation by Desmond, Singer, Singer, Calam, and Colimore (1985). Similarly, Abelman (1986) and Abelman and Pettey (1989) found that parents who were high sensitization/low inductive tended to be infrequent mediators of television. However, when they did intervene in their children's televiewing, they were most likely to utilize more restrictive forms of mediation--that is, the deprivation of a favorite television program or viewing time as a disciplinary device. Parents who were high inductive/low sensitization were more frequent mediators and more likely to practice evaluative forms of mediation--that is, the purposeful discussion and/or criticism of program and commercial content and effects. The authors also found that low inductive/low sensitization parents were largely infrequent and unfocused mediators, using television for reward/punishment without rationale, co-viewing with their children with little direct intervention, and recommending programs for viewing or not viewing without explanation. This pattern of behavior was evident in parents' use of the age-based rating system (Abelman, 1999; Greenberg & Rampoldi-Hnilo, in press).

Although the content-based ratings offer potentially more robust information on which to base or inspire more restrictive forms of parental intervention, it is unlikely that the ratings will alter firmly established child rearing and disciplinary practices. Consequently, we expect that:

H1: Parents who engage in highly inductive child rearing practices are more likely to use the content-based rating system in their mediation than are parents who engage in highly sensitizing practices;

H2: Parents who engage in highly inductive child rearing practices are more likely to use the rating system in their discussions of programs rather than as a method of restrictive mediation; and

H3: Parents who engage in highly sensitizing child rearing practices are more likely to use the rating system to directly restrict viewing preferences or practices than any other form of mediation.

Parental Perceptions of Television Effects

Among the most prominent factors that are likely to contribute to the amount of parental control of the home-televiewing situation are parents' perceptions of television's impact on their children. Mills and Watkins (1982) and Bybee, Robinson, and Turow (1982) discovered that one reason for the lack of parental mediation found in the literature was that many parents did not perceive television to be a harmful or beneficial force in their children's lives. Indeed, there was "a clear relationship between parents' awareness of possible effects of televiewing and subsequent enforcement of rules at home" (Mills & Watkins, 1982, p. 11). Similarly, Austin (1993), Abelman (1999), and Foehr et al. (in press) found that a greater knowledge of and skepticism about the television medium led to more active mediation. The Kaiser Family Foundation (1999) reported that parental concern about television effects is at an all time high, with six out of ten parents expressing concern about sex or violence. Consequently, when examining the impact of the content-based rating system on parental mediation, we expect that:

> **H4**: Parents who believe that television is likely to have a significant impact on their children are more likely to implement the content-based rating system in their mediation than are parents who perceive little or no consequences of televiewing.

Abelman and Pettey (1989) found that parents who were primarily concerned with the behavioral effects of television (e.g., the medium influencing how children behave during and after viewing) were more likely to mediate their children's televiewing than other parents. They were also more likely to apply restrictive methods of mediation, reinforcing the perception that undesirable behaviors resulting from televiewing can be reduced by restricting televiewing. In addition, parents who were more concerned with cognitive- and/or affective-level effects (e.g., the medium influencing what children think about and their thought processes; the medium influencing how children feel about themselves and others) were more likely to use evaluative mediation than other parents. These findings were confirmed by Van Evra (1998) and Desmond, Singer, and Singer (1990). Consequently, when examining the impact of the rating system on parental mediation, we expect that:

> **H5**: Parents who perceive television's impact to be primarily behavioral are more likely to use the rating system as a method to directly restrict viewing preferences or practices than are parents who perceive television's impact to be more cognitive and/or affective; and
>
> **H6**: Parents who perceive television's impact to be primarily cognitive and/or affective are more likely to integrate the rating system in their discussions about television than are parents who perceive television's impact to be primarily behavioral.

Children's Cognitive Abilities

In any discussion of parents' interactions with and disciplining of their children, and the resultant outcome of these activities, it is important to point out that children are not mere passive recipients of parental child-rearing practices. The nature of the child often dictates or shapes the type, intensity, and regularity of parental interaction and discipline, as well as how a child is likely to react to those activities. According to Brody, Pillegrini, and Sigel (1986):

> Just as researchers realized, a decade and a half ago, the limitations of unidirectional models of socialization, they today recognize that families comprise several subsystems (i.e., spousal or marital, parent-child, and the sibling subsystem), each of which affects and is affected by events that occur in the other subsystems. In particular, this suggests that parenting both influences and is influenced by the child (p. 291).

This observation explains the tendency for the inductive communication style to be more frequently found among parents of intellectually gifted children (Colangelo & Dettman, 1983; Morrow & Wilson, 1961; Roedell, Jackson, & Robinson, 1980), particularly when compared with other types of children (see, for example, Cummings & Maddux, 1985; Lynch & Lewis, 1988). In general, parents of high achieving children are significantly clearer and more open in their communication with their children than parents of academically average children who, in turn, are significantly clearer and interactive than parents of children with learning disorders (see Perkins, 1989). This may be associated with the tendency of children with such disabilities to be less effective in their own communication skills than children with no such disabilities (Green, 1990; Knight-Arest, 1984). Along the same line, Ditton, Green, & Singer (1987) studied whether parental communication deviance--"the inability to name, categorize, direct shared focal attention to, and explain aspects of the world to children" (p. 75)--was associated with the kind of cognitive deficits shown by children with learning disabilities. The analysis revealed that 87% of parents of children with LD were rated high in communication deviance; 77% of non-disabled children's parents were rated low in communication deviance.

In addition to being typically inductive in their child rearing, parents of intellectually gifted children are particularly conscious of their children's learning processes (Clark, 1997; Socha & Stamp, 1995) and the sources of external stimuli that tend to advance or hinder their children's intellectual progression (Page, 1983) when compared with other parents. This concern clearly generalizes to their perceptions of the likely impact of television on their children. According to Sprafkin, Gadow, and Abelman (1992), gifted children watch fewer hours of television than their age-mates but tend to watch more television during both the early school years and early adolescence--stages when they are arguably most vulnerable to social influences. They are also more likely to watch adult-oriented programming at an earlier age than their peers. As a result, parents of intellectually gifted children generally believe that television can have both positive (e.g., increases curiosity) and negative (decreases reading ability) affective- and cognitive-level effects on their children. Abelman (1999) found that this translated into an active adoption of the age-based rating system into parental mediation of television. Given this particular configuration of child rearing practices, parental perceptions of the role of television in their children's lives, and children's TV consumption habits, we expect that:

H7: Parents of intellectually gifted children are more likely to apply the content-based rating system in their mediation than are parents of LD and academically average children; and

H8: Parents of intellectually gifted children are more likely to use the rating system in their discussions about television than are parents of LD and academically average children.

Sprafkin, Kelly, and Gadow (1987) noted that learning disabled children are especially vulnerable to attractive television portrayals because they watch more television, are less discriminating viewers, and are less able to distinguish TV fantasy from reality than their academically average counterparts. Interestingly, LD children are more likely to watch without parental supervision and live in households with fewer rules about television usage because "parents have more pressing concerns than the potential impact of television on their children's lives" (Sprafkin et al., 1992, p. 113). This is not to suggest, however, that parents of LD children are not concerned about television. Indeed, their perceptions of the effects of television tend to be overwhelmingly negative (e.g., increases aggressive behavior) and more behavioral in nature than those identified by parents of intellectually gifted and academically average children (see Abelman, 1987). However, this did not translate into an active adoption of the age-based rating system into parental mediation of television (Abelman, 1999). Given this particular configuration of child rearing practices, parental perceptions of the role of television in their children's lives, and children's TV consumption habits, we expect that:

> **H9**: Parents of learning disabled children are more likely to use the content-based rating system in their mediation as a method to directly restrict viewing preferences or practices than are parents of gifted and academically average children.

TV Consumption Levels

According to Jack Valenti, who spearheaded the TV Parental Guidance effort, the ratings were primarily targeted at parents who needed industry intervention the most--those whose young children had free reign over the television set and who wished to "block out programs they don't want their children to see" (West & Stern, 1996, p. 26). Because unsupervised television consumption is often equivalent with excessive and age-inappropriate television choices (see Desmond, 1997; Krcmar, 1998), particularly among exceptional children (see Abelman, 1990; Van Evra, 1998), we expect that:

> **H10**: Parents of children who are heavy viewers of television are more likely to use the rating system in their mediation than are parents of light viewers.

Gender

A significant amount of research suggests that how a male or female parent responds to a child may be dependent on whether the child is male or female. Margolin and Patterson (1975), Hatfield and Abrams (1995), and Randall (1995), for example, have demonstrated that fathers provided almost twice as many positive reactions to their sons as to their daughters. Maccoby and Jacklin (1974) and Prusank (1995) found that boys were punished more often than girls and received more praise and encouragement by mothers. Baumrind (1971), Hoffman (1975), and Socha and Stamp (1995), among others, have suggested that fathers tended to be more authoritarian or sensitizing than mothers when engaged in child rearing and disciplining. There is also some evidence that parents' rules about television viewing vary with the gender of the child. Barcus (1969) and Abelman (1985), for example, found that boys had fewer TV rules than girls. Similarly, stricter and more frequent rule-making has been observed for girls (Greenberg & Dominick, 1969; Lyle & Hoffman, 1982), particularly when fathers were in charge of television mediation. Interestingly, findings are mixed with regard to parents' use of age-based (Abelman, 1999; Foehr et al., in press) and content-based ratings (Greenberg & Rampoldi-Hnilo, in press). Greenberg, Rampoldi-Hnilo, & Hofschire (in press) found that gender was not a predictor of children's attention to, attitudes toward, or knowledge of the age-based rating system shortly after its nation-wide implementation. Based on the majority of evidence to date, we expect that:

H11: Parents of girls are more likely to use the rating system in their mediation than are parents of boys; and

H12: Fathers are more likely to use the rating system as a method to directly restrict viewing preferences or practices than are mothers or parent dyads with equal involvement.

Age

As children age, parental monitoring and mediating of children's televiewing generally declines. Research suggests that parents are more likely to restrict the televiewing of three-year-olds than five-year-olds (see Mohr, 1979; St. Peters, Fitch, Huston, Wright, & Eakins, 1991), and this pattern holds as children grow older (see Lin & Atkin, 1989; Atkin, Greenberg, & Baldwin, 1991). With regard to the age-based ratings, parents with older children were found to be less aware of the rating system than parents with younger children (Foehr et al., in press). When the content-based system became available, only 10 percent of parents with children under ten years old could correctly recall any one of the specific ratings pertinent for children's programming (Kaiser Family Foundation, 1999). Recall performance by parents with children over ten years old was comparably poor. Consequently, we expect that:

> **H13**: Parents of younger children are more likely to use the rating system in their mediation than are parents of older children.

Method

Participants

The sample of parents of children aged 6 to 15 (mean = 11.6 years) was generated from 878 households with school-labeled academically average children (N = 501; 57%) with a mean IQ of 98.2 (SD = 7.85), intellectually gifted children (N = 184; 21%) with a mean IQ of 137.1 (SD = 8.32), and learning disabled children (N = 193; 22%) with a mean IQ of 95.7 (SD = 7.92). The children were selected from 40 second (N = 298; 34%), fifth (N = 304; 35%), and eighth (N = 276; 31%) grade classrooms across 15 elementary and intermediate schools in and around a mid-size Midwestern city. This represents a 70% response rate from the 1250 households contacted through the schools. All exceptional students met state and local guidelines for placement in special education or pull-out programs. Fifty-nine percent of the children were girls. Parents were recruited by letter, which sought the "only or primary rule-making and rule-enforcing parent in the household, if one exists, or both parents if [they are] equally involved in rule-making and rule-enforcing." The sample consisted of dyads (51%), mothers (28%), and fathers (21%). The surveys were delivered the last week of April 1998, nine months after the initial airing of the content-based rating system, and returned by mail the first week in May.

Measures

Parental Mediation/Ratings Usage. The type and quantity of parental mediation of television were assessed through a modified version of the instrument utilized by Abelman and Pettey (1989). A series of 17 questions asked parents about the frequency (often, sometimes, rarely, never) with which they used certain methods, in conjunction with TV ratings information, to control or guide their child's televiewing. They included:

How often have you limited your child's viewing to programs rated TV-Y or TV-G?

How often have you limited your child's viewing to age-appropriate programs (TV-Y7--for children 7 and older; TV-14--inappropriate for children under 14)?

How often have you forbidden the watching of programs rated TV-14 or TV-MA?

How often have you forbidden the watching of specific programs with an "S" (sexual content), "L" (course language), "V" (violent content), "D" (suggestive dialogue), or "FV" (fantasy violence) rating?

How often have you limited your child's viewing to programs without an "S," "L," "V," "D," or "FV" rating?

How often have you limited viewing to times when TV-Y7, TV-Y, or TV-G programs are more common than programs rated TV-PG, TV-14 or TV-MA?

How often have you asked your child to switch channels on programs with a rating that you felt was inappropriate for their viewing?

How often have you explained the meaning of the ratings and the type of programs they represent to your child?

How often have you discussed the purpose of the rating system and its application to individual programs with your child?

How often have you discussed inappropriate or objectionable content while watching a program with a rating of "S," "L," "V," "D," or "FV?"

How often have you watched programming with your child and explained why they were rated as they were?

How often have you used the TV ratings to pick shows for your child to watch?

How often have you used the TV ratings to identify shows your child should not watch?

How often have you used newspaper or magazine listings to identify program ratings to determine what programs your child should watch?

How often have you used the viewing of TV-PG, TV-MA, or TV-14 programs as a reward?

How often have you used the viewing of a program with a rating of "S," "L," "V," "D," or "FV" as a reward?

How often have you used the viewing of only TV-G, TV-Y, or TV-7 programs, or programs without a content rating, as a punishment?

The level of mediation with TV ratings[1] was determined by assigning numerical values to each response category (coded 4-1; often, sometimes, rarely, never) and summed across the 17 items that comprise the mediation index. Parents were categorized as being high mediators (range = 52-68, mean = 59), moderate mediators (range = 35-51, mean = 43), and low mediators (range = 34-17, mean = 25).

The items were then submitted to a principal axis factor analysis with varimax rotation to determine underlying dimensions of mediation. Three distinctive mediation strategies emerged. The first was the Restrictive Mediation strategy (accounting for 46% of the variance and having an eigenvalue of 6.67), which focused on the physical removal of the child from the medium in the form of specific viewing hours and the forbidding of specific programs or program types based on ratings information (alpha = .92). The second was the Evaluative Mediation strategy (explaining 28% of the variance and having an eigenvalue of 4.72), which entailed the purposeful discussion of TV programs and ratings between parents and children (alpha = .88). The third factor reflected the Unfocused Mediation strategy (explaining 12% of the variance and having an eigenvalue of 3.23), and entailed the selection of programs for viewing or not viewing without explanation and without the use of television for punishment and/or reward (alpha = .82).

Child Rearing Practices. Parental child rearing orientations were assessed through an instrument created by Hoffman and Saltzstein (1967) and modified by Korzenny, Greenberg, and Atkin (1979) and Abelman and Pettey (1989). Parental reactions toward the child's behavior were obtained in response to several hypothetical situations. Each parent was presented with eight situations, which comprise the indices below:

Positive Situation Index

Suppose (Name of child) does something really nice for you to show that (he/she) loves you. What would you do?

Suppose (Name of child) helps a friend in the neighborhood with some hard work, and you hear about it. What would you do?

Suppose (Name of child) does something really nice for someone in your family. What would you do?

Suppose (Name of child) apologizes and tells you (he/she) is really sorry for something bad (he/she) did to you. What would you do?

Negative Situation Index

Suppose (Name of child) hits a child in the neighborhood after an argument, and you find out. What would you do?

Suppose you asked (Name of child) to do something for you, and (he/she) doesn't do it. What would you do?

Suppose (Name of child) lies to you and you find out. What would you do?

Suppose (Name of child) gets mad and yells at you. What would you do?

Nine possible responses were provided for the four items that compose the positive situation index (e.g., "Say you are proud of him/her," "Give him/her something special," "Explain why it was a good thing to do"). Similarly, nine possible responses were provided for the four items that compose the negative situation index (e.g., "Yell at him/her," "Tell him/her another way to solve his/her problems," "Say you are disappointed in him/her"). Parents were asked whether each of the responses represented what their actual response would be should the hypothetical situations occur (response categories: no, maybe, yes--coded 0 to 2). Final scores for each of the eighteen response items (nine positive plus nine negative) were summed across the various social situations. The means were typically higher for the positive than for the negative situations; the means for the induction strategy items were typically higher than for the sensitization items.

The items were submitted to a principal axis factor analysis with varimax rotation, limiting the extraction of factors to the two hypothesized induction and sensitization dimensions. Factor 1 underlies the inductive orientation, accounting for 38% of the total variance with an eigenvalue of 5.54 (alpha = .93), and factor 2 comprises the sensitizing orientation of parental discipline, accounting for 24% of the variance with an eigenvalue of 4.64 (alpha = .89). Loadings of .35 were considered the cutoff point for the factor loadings.

Parental Perceptions of Television Effects. The second part of the questionnaire asked parents about their attitudes toward the likely effects of television on children. Fifteen statements were presented that referred to various commonly debated consequences of the television/child relationship (see Abelman, 1987), and included:

TV increases [name of child's] verbal ability
TV increases [name of child's] knowledge and awareness of the world
TV decreases [name of child's] attention span
TV decreases [name of child's] reading ability
TV decreases [name of child's] desire to learn
TV increases [name of child's] curiosity
TV increases [name of child's] appreciation of others
TV increases [name of child's] stereotyping of roles/genders
TV increases [name of child's] self-concept
TV decreases [name of child's] creativity
TV increases [name of child's] desire for immediate gratification

TV increases [name of child's] aggressive behavior during viewing

TV decreases [name of child's] interest in reading

TV decreases [name of child's] level of physical activity

TV decreases [name of child's] aggressive behavior after viewing

Responses noted whether parents felt television was "not a contributory cause at all," a "contributory cause of little importance," a "somewhat important contributory cause," an "important contributory cause," or a "very important contributory cause," (coded 0-5).

These items also were submitted to a principal axis factor analysis with varimax rotation and resulted in three factors. Factor 1 underlies parents' perceptions of "cognitive level effects" (TV influencing what and how children think) accounting for 41% of the variance and having an eigenvalue of 6.12 (alpha = .93). Factor 2 underlies parents' perceptions of "affective level effects" (TV influencing what and how children feel about themselves and others), which has an eigenvalue of 3.87 and explains 24% of the variance (alpha = .88) Factor 3, reflecting "behavioral level effects" (TV influencing what and how children behave), has an eigenvalue of 3.23 and explains 19% of the variance (alpha = .90). In addition, final scores for each of the 15 items were summed. Those with a mean score of 3 or greater were classified as believing that television is likely to have significant consequences on their children.

Children's Television Consumption. Three weeks prior to the parents' participation in this investigation, children were asked to keep a two-week diary of their television viewing behavior as part of a daily homework assignment. In comparison with A.C. Nielsen's (1997) measures of average child audience viewing activity, children viewing: (1) under 1 hour per day were identified as "low consumers;" (2) between 1-4 hours per day were identified as "moderate consumers;" and (3) over 4 hours per day were identified as "high consumers." The proportion of low, moderate, and high consumers among the children in this study can be found in Table 1. Broken down by cognitive capability categories, television consumption is significantly different across the groups ($p < .01$). Distribution of viewership across and within these three categories is consistent with the research literature (see Sprafkin, et al., 1992). Television consumption is also significantly different across grade ($p < .05$).

Table 1. Television Consumption

	High-Level Consumption	Moderate-Level Consumption	Low-Level Consumption
Academically Average Children	52%	38%	10%
Intellectually Gifted Children	40%	42%	18%
Learning Disabled Children	68%	27%	5%
Second Grade	58%	33%	9%
Fifth Grade	48%	45%	7%
Eighth Grade	51%	37%	12%

Statistical Analysis

Canonical correlation was the analytical tool used to examine the multivariate associations between parental ratings usage, child rearing styles, parents' perceptions of TV's impact, children's cognitive abilities, children's TV consumption habits, parent/child gender, and children's age. Similar to loadings in factor analysis, canonical component loadings represent the correlations between the original variables and the canonical variates which are linear composites of the original variables. Also like factor analysis, there may be more than one orthogonal linear composite or canonical root extracted from the data (see Ducey, 1986; Hair, Anderson, Tatham, & Black, 1992). To reduce possible misinterpretations that might result from multicollinearity, structure coefficients were computed by summing the product of canonical loadings and standardized scores of the variables for each set.[2]

Results

The canonical correlation analysis (see Table 2) indicates that three roots are significant at the .001 level.[3] The first canonical root (R_c = .37) explained 18% of the variance in common between the canonical variates. Set 1 contains positive correlations in Restrictive mediation and a high level of mediation, as well as a negative association between Restrictive mediation, Evaluative mediation, and low levels of mediation. In addition, positive associations among parents' perceptions of behavioral- and affective-level effects, perceptions of television's significant impact, high sensitization/low inductive child rearing practices, and mothers or fathers as primary mediators are found. Set 2 has positive associations among academically average children, children with learning disabilities, high and moderate levels of television consumption, male and female children, and second- and fifth-grade status.

This root identifies the type of household **most likely** to use content-based TV ratings information in the mediation of their children's televiewing--a father or a mother (partially supporting H12) who typically disciplines through physical punishment and/or the deprivation of material objects or privileges (not supporting H1), including more restrictive methods of television mediation (supporting H3) such as the deprivation of favorite programs. This type of parent believes that television can have a significant impact on children (supporting H4), and is more concerned with behavioral- and affective-level effects than cognitive-level effects (partially supporting H5). As expected, parents of learning disabled children tend to use the ratings information in more restrictive methods of television mediation (supporting H9), although many parents of academically average children also fit this description of high employers of TV ratings information for restrictive mediation. These children also tend to be moderate-to-high consumers of television (supporting H10), male (although the structure coefficients also suggest a positive association with female children to a lesser degree, partially supporting H11), and younger (supporting H13).

[Insert Table 2 About Here]

The second canonical root ($R_c = .47$) explained 22% of the variance in common between the canonical variates. Set 1 depicts a positive relationship between Evaluative mediation and a moderate level of parental mediation of television. Set 1 also groups positive associations among parents' perceptions of cognitive- and affective-level effects, perceptions of television's significant impact, high inductive/low sensitization and high induction/high sensitizing child rearing practices, and parental dyads, and a significant negative association with high sensitizing/low inductive parenting. Set 2 contains positive associations among child giftedness, female children, moderate and low levels of television consumption, and second-grade status.

This root reflects parents with a **moderate likelihood** of using TV ratings information in the mediation of their children's televiewing--parental dyads who, collectively, have a highly inductive, communicative style of child rearing, a highly evaluative method of mediation (supporting H2) that includes the purposeful discussion of programs, believe that television can have significant positive and/or negative effects on children (supporting H4), and are more concerned with cognitive- and affective-level effects than behavioral-level effects (supporting H6). Although the expectation that parents of gifted children would be most likely to employ the rating system in their mediation was not met (not supporting H7), these parents are most likely to adopt TV ratings information in their evaluative mediation strategies (supporting H8). The children that inspire this form of mediation are more likely to be younger (supporting H13) and female which, along with the structure coefficients of the first canonical root, does not support Hypothesis 11.

The third canonical root ($R_c = .65$) explained 46% of the variance in common between the canonical variates. Set 1 groups together positive correlations of Unfocused mediation and a low level of mediation, as well as a negative association between Unfocused mediation, other forms of mediation, and a high level of mediation. It also indicates positive associations among parents' perceptions of no significant impact of television, low inductive/low sensitization child rearing practices, and fathers or mothers as the primary mediator. Set 2 reflects a positive association between academically average and learning disabled children, high levels of television consumption, male children, and fifth- and eighth-grade status.

This root identifies the type of parents **least likely** to utilize TV ratings information in their mediation of their children's televiewing. These parents tend to be either mothers or fathers who exhibit little explicit supervision or direct discipline when engaging in child rearing in general and television mediation in particular. When mediation does occur, it tends to be highly unfocused in nature and includes co-viewing with little direct intervention and the recommendation of programs for viewing and not viewing without explanation. This is consistent with the expectations posited in the first set of hypotheses, which predicted that only parents with highly inductive and sensitizing child rearing practices would employ the ratings in more evaluative and restrictive mediation strategies, respectively. The profile of the parent least likely to use TV ratings also includes a perception that television does not have significant positive and/or negative effects on children (which supports H4), despite the fact that their children tend to be heavy consumers of television (which does not support H10). In addition, older boys who are academically average or learning disabled are more likely to have parents who are unfocused, low mediators than are younger children, academically average girls, and gifted children (which supports H9, H11, and H13).

Discussion

Shortly after the age-based rating system's nation-wide implementation in January 1997, it was reported that only 35 percent of parents used the system to guide their children's viewing (Bash, 1997; Mifflin, 1997). Many parents found the ratings counter-productive to decision-making and relatively useless (Greenberg et al., 1998; Krcmar & Cantor, 1997), and those who tended to use the ratings the most needed assistance in mediating their children's televiewing the least (Abelman, 1999). Similarly, within a few weeks of the initial airing of the content-based rating system in July 1997, surveys revealed that only 40 percent of parents used the system to guide their children's televiewing (Kaiser Family Foundation, 1999; Foehr et al., in press), and most found the system confusing (Rampoldi-Hnilo and Greenberg, in press). Critics immediately began second-guessing the Telecommunications Act provision to empower parents with ratings information to keep inappropriate programming from reaching children (see Bash, 1997; Fleming, 1997a).

The research reported here was conducted nine months after the content-based ratings first appeared and over a year after the MPAA ratings first aired, allowing time for ratings to become a more normative part of programming and the inconsistent application of content ratings and the resultant confusion (see Kunkel et al., 1998) to work itself out. Despite the time differential between this and other studies, this investigation confirms the small proportion of parents that actively employs the ratings in their mediation of television. However, by profiling the types of parents most likely to use the ratings in their decision-making and understanding the manner by which ratings are incorporated into TV rules and regulations in the home, this study identifies several small victories for the MPAA not found in earlier research.

First, the TV Parental Guideline system is no longer simply "preaching to the choir"--that is, parents of high academic achievers and low-to-moderate television consumers, who employ a coordinated, communication-oriented style of child rearing and a discussion-based method of TV mediation. Although these parents continue to represent a significant portion of those who have embraced the rating system, the addition of content information to the age-based ratings has apparently inspired a population of users in greater need of assistance in their mediation. According to the literature, mothers or fathers who regularly used high sensitization techniques in their child rearing have few rules about television and tend to be infrequent mediators (see Singer et al., 1984; Desmond et al., 1985). Nonetheless, they were more likely to use the content-based TV ratings information in the mediation of their children's televiewing than other parents. Similarly, contrary to expectations, parents of learning disabled children were more likely to use the content-based ratings than the ratings with age-only information. These children have been identified in the literature as particularly "high- risk," given their vulnerability to television's influence (see Van Evra, 1998), and in greatest need of televiewing mediation.

Second, the manner by which these parents incorporated content-based ratings information into their mediation was more in line with the intended purpose of the ratings than has been reflected in previous research (see Abelman, 1999). Parents used the ratings to restrict children's consumption of objectional content. The physical removal of children from the medium in the form of restrictive viewing hours or the forbidding of specific programs was rarely found among users of the age-based ratings. This finding complements survey results (Cantor, Stutman, & Duran, 1997; Kaiser Family Foundation, 1999) which reported that 77 percent of parents say that if they had a V-chip in their home they would use it to block shows they didn't want their children to see. As required by Congress, half of all new TV sets must be equipped with a V-chip by July 1, 1999 (two months after this investigation was conducted), with the remaining half by January 1, 2000. One would expect that the technology will be embraced by those fitting the profile of "most likely" user of the content-based TV ratings.

Finally, the rating system was most consistently used by parents of younger children, those in the second or fifth grade. Young children were identified by the MPAA (Stern, 1996) as in the greatest need of parental mediation, thereby resulting in the TV-Y7 (suitable for children 7 and older), TV-G (suitable for all audiences), and TV-Y (suitable for children of all ages) rating categories. They have also been among the primary targets of the majority of social intervention efforts reported in Clapp (1988), Brown (1991), and Silverblatt (1995).

This study serves to confirm the significance of specific parent- and chid-attributes that help determine how much and which form of mediation is most likely to occur in a given household. In particular, parents who did not perceive television to be a harmful or beneficial force in their children's lives were least likely to make use the age-based or content-based ratings or engage in any practical form of TV mediation. Parents concerned about cognitive-level effects were more likely to use the ratings in their discussions with children while parents concerned about behavioral-level effects were more likely to use more restrictive forms of mediation.

As with Abelman (1999), this investigation reports that parents in greatest need of ratings information to guide home televiewing are the least likely to use it. Mothers or fathers, creating and enforcing rules about television without the input of the other parent, tend to offer little explicit supervision or direct discipline when engaging in child rearing in general and television mediation in particular. They tend to believe that television does not have significant positive or negative effects on children. When mediation is enacted by these parents, it tends to be highly unfocused. Contrary to predictions, the children (primarily boys) of these low mediators are the heaviest consumers of television in the sample. The simple addition of content-specific information to the age-based ratings proved insufficient in modifying an unfocused mediation strategy deeply rooted in low inductive/low sensitizing child rearing practices. V-chip technology provides a simple, more direct method of mediation for parents, but it too may be largely ignored by these parents.

The most significant limitation of this study is that it relied on parents' self-reports. Although parents were given the survey privately in their own homes, socially desirable responses are likely to have emerged. This is a limitation shared by the majority of reports on audience responses to television program ratings, and does not necessarily undermine the ability to compare findings across reports.

Notes

1. For a discussion of the distinction between active and inactive parental mediation of television see Austin (1992; 1993) and Messaris (1982).

2. Although alternatives to canonical correlation have recently come into fashion, this analysis has been the method of choice in the body of research on which this investigation is based and with which our findings will be compared (i.e., Abelman, 1990, 1999; Abelman & Pettey, 1989). It should also be noted that one particular advantage of canonical correlation involves its ability to accommodate metric as well as nonmetric data for either the dependent or independent variables; it places the fewest restrictions on the types of data on which it operates. Because some measures in this investigation are essentially ordinal composites (i.e., nonmultivariate-normal), canonical analysis remains a more appropriate test than others that are designed for metric data.

3. The significance of canonical roots is assessed through the Bartlett's chi-square test.

Table 2. Canonical Correlates

	Root 1		Root 2		Root 3	
	Canonical Variate	Structure Coefficient	Canonical Variate	Structure Coefficient	Canonical Variate	Structure Coefficient
Set 1: Parent Attributes						
Restrictive Mediation	.85	.94*	-.12	-.14	-.32	-.64*
Evaluative Mediation	-.56	-.77*	.86	.92*	-.18	-.21*
Unfocused Mediation	.01	.12	.07	.09	.74	.86*
High Mediation	.79	.84*	.21	.27	-.22	-.38*
Moderate Mediation	.12	.16	.82	.94*	.02	.04
Low Mediation	-.49	-.76*	-.17	-.19	.62	.89*
High Inductive/Low Sensitizing	-.73	-.82*	.83	.93*	-.18	-.20
High Sensitizing/Low Inductive	.76	.87*	-.80	-.86*	-.16	-.18
Low Inductive/Low Sensitizing	-.08	-.10	.09	.12	.38	.67*
High Inductive/High Sensitizing	.12	.19	.22	.34*	-.17	-.19
Perceived Cognitive Effects	.07	.11	.89	.92*	-.02	-.07
Perceived Affective Effects	.39	.68*	.36	.68*	.08	.09
Perceived Behavioral Effects	.42	.81*	-.03	-.08	-.10	-.16
Perceived Significant Impact	.64	.66*	.74	.84*	-.11	-.16
Perceived Insignificant Impact	-.12	-.19	-.09	-.17	.28	.29*
Parental Dyad	-.04	-.08	-.87	.94*	-.14	-.19
Mother as Mediator	.28	.35*	.08	.12	.21	.34*
Father as Mediator	.58	.68*	-.03	-.07	.28	.40*
Redundancy Coefficients	[.06]	[.12]	[.05]	[.10]	[.04]	[.03]
Set 2: Child Attributes						
Intellectually Gifted	-.06	-.09	.78	.91*	.16	.17
Learning Disabled	.46	.62*	-.03	.06	.22	.29*
Academically Average	.81	.90*	.12	.14	.76	.87*
High Consumer	.56	.89*	-.06	-.10	.51	.83*
Moderate Consumer	.48	.68*	.16	.28*	.12	.14
Low Consumer	-.14	-.18	.83	.92*	-.17	-.19
Male	.64	.83*	-.12	-.17	.62	.92*
Female	.26	.38*	.74	.93*	-.12	-.16
2nd grade	.83	.93*	.82	.91*	.11	.19
5th grade	.22	.36*	-.07	-.09	.20	.32*
8th grade	-.11	-.19	-.12	-.10	.52	.74*
Redundancy Coefficients	[.05]	[.10]	[.04]	[.08]	[.04]	[.02]

Note: Root 1: Rc = .37, eigenvalue = .18, x2(168) = 125.76, p<.001; Root 2: Rc = .47, eigenvalue = .22, x2(183) = 152.68, p<.001; Root 3: Rc = .65, eigenvalue = .46, x2(527) = 259.76, p<.001; *p < .001

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It's All About the Information

Salience Effects on the Perceptions of News Exemplification

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RUNNING HEAD: Salience Effects on the Perceptions of News Exemplification

It's All About the Information

Salience Effects on the Perceptions of News Exemplification

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ABSTRACT

This study expands upon previous base rate v. exemplification research in examining salience effects on perceptions of mediated messages. Using ecologically valid news stimuli, different involvement measures are shown to interact with base rate and exemplified information with interesting implications. Results indicate that the persuasive and retentive effects of base rate and exemplified information depend upon whether salience is cognitive or affective, supportive or refutative. Valence is nullified as an important factor in message acceptance.

It's All About the Information

Salience Effects on the Perceptions of News Exemplification

One need only to pick up a newspaper to see that standard practices of journalism consist of offering the audience a combination of purely descriptive or quantitative information and more colorful or anecdotal information. This practice of providing readers with both base rate and exemplified information has gained considerable attention from the research community, which has striven to answer, among other questions, how the audience uses these varying types of information to formulate judgements. There is, however, much debate within this research community over exactly what types of influences base rate and exemplified information have over media audiences given different situations (Zillmann & Brosius, 2000).

Baesler and Burgoon (1994), for example, canvassed the research ground and found an ample population of media-based studies that evidenced the divergent effects of base rate and exemplified information on audience perceptions. Of the sampled studies, all of which combined base rate and exemplified data into one stimulus, thirteen of the studies found the exemplified parts of the stimulus material to be more persuasive than the base rate information. Another two studies, however, found the base rate data to be more persuasive than the exemplified information. Finally, Baesler and Burgoon found four studies that reported no significant difference in the persuasive effects of either base rate or exemplified data on audience perceptions of the given issues. In short, there is a plethora of questions regarding the effects of base rate and exemplified data on the media audience, many of which insinuate that there are other factors that will determine how base rate and exemplified data may be used in certain situations. Indeed, more recent media studies, as well as literature discussing vividness and persuasion, suggest that one of the most powerful factors in determining the persuasive effects of base rate and exemplified information may be salience. However, the verdict is still out regarding just how base rate and exemplified data affect audience perceptions of mediated information.

Media Studies. One of the more prominent studies regarding base rate versus exemplification in the mass media is that of Gibson and Zillmann (1994). Gibson and Zillmann presented their research participants with an ecologically valid, journalistic story on carjacking, a story that utilized base rate and exemplified text in combination. In addition, the authors varied the level of precision of each type of text in a factorial pattern. What they found was that participants, regardless of the amount of distortion engineered into each type of text, strongly favored the exemplified information as shown in their elevated perceptions of the risk of being carjacked. This result is representative of the majority of studies found by Baesler and Burgoon (1994) that claim that exemplification is the more persuasive form of media.

Perhaps an explanation for this finding can be offered by Kopfman et al. (1998). In this study, Kopfman et al. isolated the base rate information from the exemplification, presenting research participants with either statistical information or a form of narrative storytelling. Similar to the findings by Gibson and Zillmann (1994), participants in this study exhibited strong affective reactions towards the exemplified story. However, Kopfman et al. also discovered that the statistical data, the base rate counterpart, more strongly influenced cognitive reactions.

Similar to the above study, Baesler and Burgoon (1994) presented their base rate data and exemplified information in isolation. In their test of issue perception, Baesler and Burgoon found that the statistical information condition was more persuasive than the individuating narrative condition, an opposite finding of Gibson and Zillmann (1994). However, Baesler and Burgoon also noted that base rate information that was more vivid outperformed more pallid base rate data, which introduces the concept of vividness as overcoming the simple effects of base rate or exemplified information.

Brosius and Bathelt (1994) also introduced vividness into their study, applying vividness to the exemplified information rather than the base rate data. Specifically, they purposely designed their exemplified condition to include individuating information that was "less valid but more vivid" (p. 48), and conversely created their base rate counterpart to be general descriptives of the same issue. Again, presenting their conditions in a journalistic fashion, Brosius and Bathelt found that the exemplars had a stronger influence on issue perception, as well as on personal opinions toward the issue. This finding provides further evidence that vividness may be the underlying mechanism that shoulders exemplification, usually more vivid than base rate data, as the more powerful influence on perceptions of the media audience.

Vividness. Fiske and Taylor, in 1991, wrote that theory and common sense suggests that vividness has a major influence on its audience, and then stated that the research suggests the contrary. Still, Eagly and Chaiken (1993) offered that there was a small body of research that showed that vividness, represented by such texts as eyewitness testimonies and health appeals, could exert "genuine judgmental effects under certain conditions" (p. 279). Indeed, Fiske and Taylor (1991) reported that vivid information does have a measurable emotional impact, the affective effects of which can impact judgment, as illustrated in Kopfman et al. (1998), for example. In contrast, Frey and Eagly (1992) reported that vivid and pallid information can be equally persuasive when the consumer is obliged to pay attention, whereas pallid information can be more persuasive in incidental encounters (in Eagly & Chaiken, 1993).

Besides persuasive tendencies, Fiske and Taylor (1991) argued that vivid information, which is, by nature, more inclined to create an internal visual representation, should be encoded more fully, thus making it more memorable. However, they also acknowledged the observation by Petty and Cacioppo (1979) that vivid advertisements may trigger more peripheral cues, leading to less recollection of the cogent arguments (in Fiske & Taylor, 1991). Fortunately, Petty and Cacioppo have an answer as to why this disparity in recollection is possible, an answer which incorporates the observations on attention by Frey and Eagly (1992) and introduces a new factor as a possible explanation for the differing methods of information processing.

Elaboration Likelihood Model of Persuasion. Petty and Cacioppo (1986) said of message processing that "[i]n relatively *objective* processing, some treatment variable either motivates or enables subjects to see the strengths of cogent arguments and the flaws in specious ones, or inhibits them from doing so" (p. 136). The authors also noted a positive correlation between objective message processing and message involvement. Specifically, as message involvement, or as the motivation to process a message increases, the central route to persuasion (versus the peripheral route) is engaged, leading to the more thorough processing of message arguments. Conversely, as the motivation to process arguments decreases, the peripheral route is employed, resulting in a decreased recollection of the cogent arguments. These observations, represented in Petty and Cacioppo's (1986) Elaboration Likelihood Model of Persuasion, indicate that the motivation to process, hypothesized to include personal relevance, or salience, may be a key determinant of how persuasive and memorable a message can be.

Salience. The link between salience and information processing was, perhaps, first loudly proclaimed in Anderson's information integration theory (in Eagly & Chaiken, 1993). Anderson regarded salience in terms of attention, defining it as "a determinant of information acceptance" (in Eagly & Chaiken, 1993, p. 263). In conjunction, Anderson proposed that salience was a component of valuation, one of two operations used to formulate or alter attitudes via his theorized process by which attitudes are created and altered via the integration of new information with previously held attitudes. This proposed influence of salience on message processing and attitude formation has been examined in a handful of base rate versus exemplification studies.

One such study by Krupat et al. (1997) offers compelling evidence that salience does, indeed, lead toward a more centrally processed message in which base rate data is the more "accepted" information. Krupat et al. pitted anecdotal information against statistical information, both of which described one of three automobiles. The researchers manipulated research participant salience by manufacturing familiarity and expectation levels for each of the three featured vehicles. Krupat et al. then presented the participants with either a base rate-only text, an exemplar-only text, or a text that combined the base rate and exemplified information. The researchers found the statistical, base rate data to be more persuasive than either the exemplification or the combined condition when the information was highly salient, or "comprehensible and diagnostically relevant" (p. 345).

Jepson and Chaiken (1990) also tested salience, using differing levels of fear as their measure of message involvement (in Eagly & Chaiken, 1993). Jepson and Chaiken presented research participants with information regarding cancer. In an interesting contrast to the findings of Krupat et al. (1997), Jepson and Chaiken's results illuminated that participants registering high in fear recalled fewer arguments, listed fewer message-related cognitions, yet were more persuaded by the message than the low fear participants. Peculiarly, the emotional involvement led to more of an acceptance of the fear appeal, yet decreased evidence of central processing.

This result is not contrary to the thoughts of Anderson, who anticipated this effect regarding salience. He noted that salience, seen in terms of attentional factors, "...may contribute to the well-known tendency in impression formation research for negative information to be weighted more heavily than positive information" (in Eagly & Chaiken, 1993, p. 250-251). This hypothesis would explain the disparate results of the above salience studies regarding the persuasive powers of the exemplified versus the base rate information. Regarding message memorability, the disparity may be reasoned using Petty and Cacioppo's (1986) posit that "[i]n relatively biased processing some treatment variable either motivates or enables subjects to generate a particular kind of thought in response to a message, or inhibits a particular kind of thought" (p. 136). Perhaps more emotional involvement, (or more vivid appeals?), produces a biased form of processing that is illuminated by the research conducted by Jepson and Chaiken (in Eagly & Chaiken, 1993). However, evidence (see Krupat et al., 1997) and theory suggests that less emotional, yet personally relevant issue involvement may lead to the use of the central route to persuasion, as well as greater recollection of message arguments.

Purpose of Study. The literature in media studies, psychology, and persuasion, clearly indicate that the jury is still out regarding the effects of involvement, which can be considered a type of salience, on the persuasive and retentive power of different kinds of information. Most evidence suggests that exemplars are more persuasive than base rate data under certain conditions. However, the research appears to favor base rate information over the more vivid exemplification in terms of persuasion and recollection under high involvement, although this type of involvement apparently needs to be less emotional in its personal relevance (see Krupat et al. 1997). Thus, two research questions arise from the literature review. First, it must be determined whether the base rate or the exemplified information will prove to be more persuasive under the influence of different kinds of issue involvement. Second, it must be determined whether the recollection of the base rate and the exemplified information will parallel that of their persuasive effects at each level of involvement, or if recollection of each condition will simply increase with increased involvement, much like the ELM suggests.

The present study takes the methodologies of Gibson and Zillmann (1994) and Krupat et al. (1997) and applies them toward a determination of the interactive effects of salience and base rate versus exemplified information on persuasion and recall. It defines base rate information as quantified descriptions and exemplified information as anecdotes or stories based upon the definitions utilized by Baesler and Burgoon (1994). In a slight deviation from the majority of methodologies, however, the base rate data presented in this study's stimuli argue an opposing side of the presented issue than does the exemplified information. The purpose of this is two-fold. First, it is surmised that persuasive tendencies will be more discernable if the two types of information are placed in opposition. Second, the opposing valences of these texts allows for observation of a combined base rate and exemplar condition in terms of McGuire's inoculation theory.

William McGuire proposed of two-sided stories that "attitudes and beliefs are vulnerable to persuasive attack by opposing arguments and protection against such attacks may be achieved by exposing people to weakened forms of the attacking message" (in Eagly & Chaiken, 1993, p. 561-562). This proposition, the crux of inoculation theory, is a child of Carl Hovland and his associates. Born from Hovland's 1953 Yale studies, the proposition hails the Yale studies' conclusion that two-sided messages were more persuasive than one-sided stories due to a decreased audience motivation for counterargument (in Eagly & Chaiken, 1993). In other words, a two-sided story may act as an intensifier for the supportive information, allowing it to emerge as the more persuasive text.

Finally, different measures of involvement are necessary in honor of the variant results of Krupat et al. (1997), who measured involvement in terms of familiarity and expectations concerning a product, and Jepson and Chaiken (in Eagly & Chaiken, 1993), who used the very emotional fear of cancer as an involvement measure. In addition, a second type of measure may be helpful in testing the assumed emotional involvement of the research participants, as well as comparing the results of an interaction between the different measures of salience (involvement) and the information condition. In this case, because the persuasive power of exemplification involves a belief or connection with the characters of the anecdote, empathy appears to be the best indicator of an emotional involvement, and the best covariate and co-factor for this base rate versus exemplification study. Thus, a fourth research question emerges about whether empathy will have a clarifying or intensifying effect in conjunction with involvement in determining the persuasive and retentive strengths of base rate data, exemplified data, and base rate and exemplified data in combination.

METHOD

Overview. To test the three research questions, three experimental conditions were selected under which research participants were exposed to print stimulus material. These participants were also categorized as either having high or low involvement (salience) levels regarding the stimulus issues, and as measuring high or low on an empathy scale. The resulting 3x2x2 design assessed the resulting risk perception (see Gibson & Zillmann, 1994) and recall of the participants based on whether they read a base rate, an exemplified, or a combined news story, and whether they measured high or low in involvement and empathy. In each session, participants completed questionnaires that measured the independent and dependent variables. In addition, participants responded to questions designed to mask the intent of the study.

Research Participants. Research participants were recruited from large fundamentals courses offered by a communication department in a major southeastern university. Seventy-nine students agreed to participate, a sum that was divided into thirds and assigned at random to one of the three stimulus conditions. Of the total sample, 62 were female and 17 were male. For deliberate reasons, further demographic information such as ethnicity and income was not solicited. It can be noted, however, that the students in the sample ran the undergraduate gamut from freshman to senior level.

Procedure. In each of the selected classes, a facilitator was introduced by the instructor at the end of the class period and was subsequently given the opportunity to persuade students to remain in the classroom and participate in the study. In some cases, students were offered extra credit in exchange for their participation. However, other instructors did not offer students such an exchange.

The facilitator waited for the instructor and disinclined students to leave the classroom. Then, those students wishing to participate in the research were given a manila folder that contained a packet representing one of three conditions, distributed in a random order. The facilitator gave explicit directions regarding the stipulations of the consent form, the employment of the packet, and the intended environment of the session—completion in a quiet, confidential manner.

At this time, a second facilitator entered the scene and passed out a second packet to the participants. This packet was introduced as an element from a separate project that aimed to assess the current attitudes, trends, and life styles of college students. Students were asked to indulge the second facilitator, fill out this packet, and slide it into the manila folder behind the first packet. All of the participants consented to this indulgence.

Once this step was completed, participants were asked to address the first packet. The first facilitator asked the participants to read the first news story. After everyone had completed this task, the facilitator asked the participants to turn the page and complete the revealed evaluation. The execution of the packet continued in this fashion until all stories were read and all evaluations were completed. Participants were finally asked to enclose all paperwork in their manila folders and to leave them behind for collection.

Packet Contents. The first packet, delivered to participants inside the manila folders, contained one of three news stories representing one of the three experimental conditions. Measures for the dependent variables were also included after the stimulus material. A third inclusion, a news evaluation, was inserted after each story to serve both as a mask and as a separator between the stimulus material and the dependent measures. The final inclusion was the consent form, the cover sheet for the packet.

The second packet, which was actually completed first, housed the independent and masking questionnaires. The first evaluation contained two measures of issue salience for each stimulus. The second and third questionnaires covered empathy and quantitative representations in the media, respectively. Finally, a consent form was included in this packet.

Stimulus Material. Two news stories, each with three versions, were written to provide ecologically valid stimulus material for the three conditions. The first version of each story, corresponding with Condition 1, contained three paragraphs of base rate information sandwiched between a synoptic introduction and conclusion. The second version, written for Condition 2, contained three paragraphs of exemplified information in between the common introduction and conclusion. The third version for Condition 3 combined the base rate paragraphs from the first version and the exemplified paragraphs from the second version. In addition, paragraphs alternated between base rate and exemplified information so that no two paragraphs contained the same type of information. Again, the same introduction and conclusion was used for the respective story. Consequently, the version in Condition 3 had three more paragraphs than either Condition 1 or 2.

The first news story examined safety issues of roller coasters. The introduction offered the traditional case information, highlighting several occurrences of real roller coaster accidents previously reported in legitimate newspapers. The base rate information consisted of fictitious interviews with experts who provided pallid, statistical information supporting the safety of roller coasters. Conversely, the exemplified information presented the fictitious testimony of people who had witnessed roller coaster accidents and were now wary of roller coaster riding. Finally, the conclusion offered information about state governmental actions regarding roller coaster safety violations.

The second news story introduced a new diet pill. The introduction of this story described the origin, the makers, and the claims associated with the imaginary pill. Fictitious base rate information quoted experts who used statistical information as evidence that the diet pill was either ineffective or potentially harmful. Fictitious exemplified information quoted participants in the preliminary study or friends of these participants, all of which testified to the effectiveness and appeal of the pill. The conclusion simply stated information on the future availability of the product.

Independent Variables. Condition was the first independent factor, manufactured experimentally by randomly assigning equal numbers of participants one of the three versions of each packet. Condition 1 consisted of base rate information only, Condition 2 consisted of exemplified information only, and Condition 3 consisted of both base rate and exemplified information. Between 25 and 28 participants fell under each condition.

Issue salience was the second independent factor used in the analysis. This measure was assessed via the first completed questionnaire, which contained salience measures for both the first and second stories. The first portion of this evaluation asked participants to rate how appealing and how safe nine different extreme sports were to them based on a scale from 0 to 10. Included in this list were such activities as rollerblading, extreme skiing, and roller coaster riding. From this list, the two questions soliciting opinions regarding the personal appeal and perceived safety of roller coasters was used as the involvement measures for the roller coaster stimulus.

The second portion of the evaluation asked participants to rate how important in terms of looks and health six different activities were to them, also based on a scale from 0 to 10. Items in this portion included jogging, weightlifting, and dieting, among other weight loss and exercise items. Parallel to the salience measures for the roller coaster story, the perceived importance of dieting to overall health and the more personal importance of dieting to physical appearance were utilized for the diet pill story.

An empathy questionnaire provided the third independent variable for the study. The empathy evaluation consisted of a sixteen-item scale (Tamborini & Mettler, 1990) that asked participants to respond to various statements utilizing five-point response scales ranging from Strongly Agree to Strongly Disagree. Statements assessed such attitudes as perspective, sensitivity, and sympathy. These items were summated and reserved for use as an independent factor and as a potential covariate for recall tests.

Dependent Measures. The dependent variables for the analysis were information recall and issue perception. After each story was read and evaluated, two surveys asked participants to judge the threat of partaking in the respective practice, be it riding roller coasters or taking diet pills. Questions focused on the perceptions of risk to the general public, to regular or occasional partakers, or to themselves. In addition, participants were asked to evaluate the effectiveness of existing agencies and laws meant to ensure the safety of riding roller coasters or taking diet pills. Three final questions asked participants to rate the likelihood of their partaking in the respective action or of their recommending that others partake in that action in the near future. In total, each story was partnered with seven issue perception questions, the response choices of which consisted of a 0-to-10 scale ranging from no threat to extreme threat.

The final two surveys measured information acquisition for each news story. Each survey asked participants to recall specific facts from each story, aided by the multiple-choice format of the evaluation. Twelve questions were created for each story, with six questions specifically targeting base rate paragraphs and six questions targeting the exemplified text. In observance of the conditions, participants in Condition 1 only received the six base rate questions, participants in Condition 2 received the six exemplification questions, and those in Condition 3 received all twelve questions.

RESULTS

Operationalization of Independent Variables. For the roller coaster story, salience was operationalized via the two single-item measures of involvement regarding the personal appeal and perceived safety of roller coasters. Likewise, salience for the diet pill story was operationalized using the two single-item involvement measures of the importance of dieting to personal looks and general health. To create a two-level factor, these four measures of involvement were subjected to a median split and subsequently divided into a high involvement and a low involvement group.

Responses from the empathy questionnaire were scored using a 1 to 5 scale, with *Strongly Disagree* scored as 1 and *Strongly Agree* scored as 5. Scores were then added to create a composite empathy score for each participant. Because a two-level factor was needed to cross empathy, salience, and condition, empathy was also subjected to a median split and separated into high and low empathic groups. However, the original scores were retained for possible use as a covariate if needed in future tests.

Operationalization of Issue Perception. The issue perception measure for the roller coaster story was a factor score created from the results of a principle component analysis (PCA) performed on the seven items concerning roller coaster risk. The PCA with Equamax rotation yielded a strong first factor consisting of perceived risk to regular riders, occasional riders, and to the self. This factor, which accounted for 46.383% of the variance ($\alpha = .876$), was chosen as the dependent variable for the roller coaster statistics. The resulting factor loadings for this analysis (see Table 1), as well as the alpha levels and variance accounted for, are presented below.

The issue perception measure for the diet pill story was a factor score created in the same manner as that for the roller coaster story. A PCA with Equamax rotation performed on the seven diet pill risk perception items yielded three similar factors. As with the above measure, the first factor consisting of perceived risk to regular pill takers, occasional takers, and to the self was used to create the factor scores for the dependent variable. Factor loadings, alpha levels, and accounted variance are in Table 2 below.

Operationalization of Recall. Items asking participants to recall various facts presented in the stimulus material were awarded a 1 for a correct answer and a 0 for an incorrect answer. These scores were then summed to create a composite recall score for each participant. Furthermore, each score was calculated as a percentage-correct, and Condition 3 scores were additionally calculated as percentages of correct base rate and exemplified aided recollections. This step allowed comparisons between each group to see who learned more of which type of information.

Table 1

Factor Loadings for the Roller Coaster Issue Perception Items

Item	Factor Loadings		
Danger posed to occasional roller coaster riders	.891		
Danger posed to regular roller coaster riders	.875		
Likelihood of personal harm while riding a roller coaster	.858		
	$\alpha = .876$		
Likelihood of riding a roller coaster in the near future		.948	
Likelihood of recommending riding to friends/family		.887	
		$\alpha = .893$	
Effectiveness of park owner safety measures			.936
Effectiveness of government safety measures			.914
			$\alpha = .859$
% Variance Accounted For	46.383%	24.980%	14.580%

Note. Factors were extracted via a principle component analysis with Equamax rotation.

Table 2

Factor Loadings for the Diet Pill Issue Perception Items

Item	Factor Loadings		
Danger posed to regular diet supplement takers	.850		
Danger posed to occasional diet supplement takers	.843		
Likelihood of personal harm in taking diet supplements	.802		
	$\alpha = .808$		
Effectiveness of government safety measures		.947	
Effectiveness of pharmaceutical safety measures		.930	
		$\alpha = .888$	
Likelihood of taking diet supplements in the near future			.909
Likelihood of recommending use to friends/family			.865
			$\alpha = .796$
% Variance accounted for	42.893%	23.099%	15.505%

Note. Factors were extracted via a principle component analysis with Equamax rotation.

Roller Coaster Risk Perception Analysis. Two univariate ANOVAs were run using condition, involvement, and empathy as independent variables and risk perception as the dependent variable. The first ANOVA crossed condition (3 levels) with personal roller coaster appeal (2 levels) and empathy (2 levels). This test yielded a significant main effect for appeal ($F = 26.082$, $p < .01$) and a significant main effect for empathy ($F = 4.554$, $p < .05$), in which both high appeal and high empathy coincided with increased perceptions of risk. More importantly, the test yielded a significant interaction between condition and appeal ($F = 3.417$, $p < .05$), the results of which are presented below.

Table 3

Mean Risk Perception Scores for Condition x Appeal Interaction

Condition	Low Appeal	High Appeal	Sig. by Condition
Base Rate Only	-0.027^{A}	0.385	not sig.
Exemplification Only	-0.517^{AB}	0.487	$p < .01$
Base Rate and Exemplification	-1.145^{B}	0.523	$p < .01$
Sig. per Level of Appeal	$p < .01$	not sig.	

Note. Means with different superscripts within a shared column significantly differ by the Tukey/Kramer (TK) method (Hinkle, Wiersma, & Jurs, 1998, p. 394).

As is apparent from the data, respondents in both the exemplar and base rate plus exemplar conditions significantly had significantly higher risk perceptions when measuring high in appeal versus low in appeal. Meanwhile, groups reading only the base rate information remained steady in risk perceptions despite levels of involvement. In addition, those with little appeal for coasters who read the two-sided story gave risk a significantly lower rating than did those with low appeal and in the base rate only condition. High appeal, however, resulted in a convergence of the three conditions in terms of risk. It is important to remember here that the exemplars in the roller coaster story were negative regarding coaster safety and that the base rate data ensured safety.

The second ANOVA crossed condition with perceived roller coaster safety and empathy. Again, a significant main effect was found for perceived safety (F = 14.377, p < .01), in which a lower faith in roller coaster safety resulted in higher perceptions of risk. In addition, an interaction between condition and involvement was found (F = 2.499) to be significant at the p < .10 level, with significant differences between cells at the p < .01 level. The results are presented in Table 4 below.

Table 4

Mean Risk Perception Scores for Condition x Safety Interaction

Condition	Low Safety	High Safety	Sig. by Condition
Base Rate Only	0.546	-0.734	p < .01
Exemplification Only	0.100	-0.066	not sig.
Base Rate and Exemplification	0.310	-0.883	p < .01
Sig. per Level of Safety	not sig.	not sig.	

Note. Means significantly differ by the Tukey/Kramer (TK) method (Hinkle, Wiersma, & Jurs, 1998, p. 394).

Here, the base rate and base rate with exemplar conditions significantly decreased in perceived risk from measures of low faith in coaster safety to high measures of faith in coaster safety. The exemplification-only condition witnessed no change in risk perception according to the level of involvement. Likewise, conditions were not significantly different from each other when comparing risk within the low safety faith or high safety faith groups. Here, in opposition to the above results, it appears that the only effect was that in which respondents were more persuaded by the base rate information depending upon whether they thought that roller coasters rated low in overall safety or high in safety.

Diet Pill Risk Perception Analysis. The results for the diet pill story were similar. In the ANOVA that crossed condition, empathy, and the general importance of dieting to health, an interaction was found between condition and health ($F = 2.908$, $p < .10$), as well as between condition and empathy ($F = 4.304$, $p < .05$). The results of the condition X health interaction (shown in Table 5 below) indicate that the base rate data becomes more prominent when dieting is thought to be more important to overall health.

Table 5

Mean Risk Perception Scores for Condition x Health Importance Interaction

Condition	Low Health	High Health	Sig. by Condition
Base Rate Only	-0.339	0.498^{A}	$p < .05$
Exemplification Only	0.002	-0.398^{B}	not sig.
Base Rate and Exemplification	0.257	0.042^{AB}	not sig.
Sig. per Level of Health Importance	not sig.	$p < .05$	

Note. Means with different superscripts within a shared column significantly differ by the Tukey/Kramer (TK) method (Hinkle, Wiersma, & Jurs, 1998, p. 394).

This interaction parallels the findings of the roller coaster test of condition X safety, in which the significant effect is found within the base rate condition. Accompanying this effect, the condition X health ANOVA also shows a significant difference in risk perception within the high-health-importance group between respondents in the base rate condition and respondents in the exemplification condition. Specifically, under high involvement, those in the base rate condition estimated higher risks than those in the exemplification condition. Again, it warrants repeating that the base rate data in the diet pill story portrayed diet supplements negatively and that the positive exemplars praised them.

The interaction between condition and empathy for health involvement mirrors that of the interaction between condition and empathy for the involvement measure regarding dieting and its importance to personal looks ($F = 2.711$, $p < .10$). Tables 6 and 7 display the means for the condition X empathy interaction for the health and looks tests, respectively. (No other effect was found for personal looks and condition regarding risk.)

In these two interactions involving empathy, high measures of empathy result in the accentuated persuasive power of exemplars, evident in the significant decrease in risk perception among high empathizers who read the exemplar-only story versus low empathizers who read the same. Incidentally, this result is not unlike the result seen in the condition X coaster appeal interaction, which also utilized a more personal, less cognitive measure of involvement. The other effect seen in the two tables is that the exemplification condition is significantly lower than the other two conditions under high empathy. No difference between conditions is evident within the low empathy group.

Table 6

Mean Risk Perception Scores for Condition x Empathy Interaction of Health Importance

Condition	Low Empathy	High Empathy	Sig. by Condition
Base Rate Only	-0.175	0.334^{A}	not sig.
Exemplification Only	0.364	-0.760^{B}	$p < .01$
Base Rate and Exemplification	0.178	0.121^{A}	not sig.
Sig. per Level of Empathy	not sig.	$p < .05$	

Note. Means with different superscripts within a shared column significantly differ by the Tukey/Kramer (TK) method (Hinkle, Wiersma, & Jurs, 1998, p. 394).

Table 7

Mean Risk Perception Scores for Condition x Empathy Interaction of Looks

Condition	Low Empathy	High Empathy	Sig. by Condition
Base Rate Only	-0.015	0.223^A	not sig.
Exemplification Only	0.302	-0.782^B	p < .01
Base Rate and Exemplification	0.301	0.146^A	not sig.
Sig. per Level of Empathy	not sig.	p < .05	

Note. Means with different superscripts within a shared column significantly differ by the Tukey/Kramer (TK) method (Hinkle, Wiersma, & Jurs, 1998, p. 394).

Roller Coaster Recall Analysis. Analyses for recall of the roller coaster information was three-fold. First, the total percentage of correct answers was compared using a univariate ANOVA crossing condition with involvement and using empathy as a covariate. Involving the appeal measure, the ANOVA yielded a significant main effect for appeal (F = 4.136, p < .05), in which respondents in the high appeal group (65.7%) remembered over twelve percent more items than those in the low appeal group (53.6%). In addition, a significant interaction between condition and appeal (F = 3.470, p < .05) showed that high appeal respondents in the exemplification condition remembered far more than low appeal respondents in the same condition (see Table 8).

Results were contrastive for the safety involvement measure. This ANOVA, which crossed condition with perceived roller coaster safety, also yielded a near significant main effect for safety (F = 3.595, p < .10), in which lower faith in safety (61.9%) coincided with higher percentage of recall than high faith in safety (50.9%). However, the significant condition X safety interaction (F = 3.230, p < .05) showed that recall in the base rate condition was the most affected by involvement (in Table 9 below).

Table 8

Percentage of Information Recalled for Condition x Appeal Interaction

Condition	Low Appeal	High Appeal	Sig. for Condition
Base Rate Only	61.1%	64.4%	not sig.
Exemplification Only	41.3%	75.2%	p < .01
Base Rate and Exemplification	58.4%	57.5%	not sig.
Sig. per Level of Appeal	not sig.	not sig.	

Note. Means significantly differ by the Tukey/Kramer (TK) method (Hinkle, Wiersma, & Jurs, 1998, p. 394).

Table 9

Percentage of Information Recalled for Condition x Safety Interaction

Condition	Low Safety	High Safety	Sig. for Condition
Base Rate Only	72.9%	41.4%	p < .01
Exemplification Only	53.5%	54.5%	not sig.
Base Rate and Exemplification	59.2%	56.9%	not sig.
Sig. per Level of Safety	not sig.	not sig.	

Note. Means significantly differ by the Tukey/Kramer (TK) method (Hinkle, Wiersma, & Jurs, 1998, p. 394).

The second prong to the recall analysis was the comparison of base rate recall between the base rate-only condition and the combined condition. In this case, the condition X appeal ANOVA yielded no significant differences in recall. In likely contrast, the condition X safety ANOVA illuminated both a significant main effect for safety ($F = 6.835$, $p < .05$) and a significant interaction between condition and safety ($F = 4.724$, $p < .05$). The main effect (Low Safety = 65.3%, High Safety = 47.7%) and interaction results (in Table 10) mirror those of the previous ANOVA, in that lower scores for safety yielded better recall overall, and especially in the base rate condition.

Table 10

Percentage of Base Rate Information Recalled for Condition x Safety Interaction

Condition	Low Safety	High Safety	Sig. for Condition
Base Rate Only	73.0%	41.0%	$p < .01$
Base Rate and Exemplification	57.5%	54.4%	not sig.
Sig. per Level of Safety	not sig.	not sig.	

Note. Means significantly differ by the Tukey/Kramer (TK) method (Hinkle, Wiersma, & Jurs, 1998, p. 394).

The final portion of the recall test was the comparison of exemplar information recall between the exemplification-only and combined conditions. Here, the condition X safety ANOVA yielded no significant results. The condition X appeal ANOVA, however, did uncover both a significant main effect for appeal ($F = 4.483$, $p < .05$) and a significant condition X appeal interaction ($F = 6.243$, $p < .05$). Similar to the relationship seen with the above condition X safety results in Tables 9 and 10, the main effect (Low Appeal = 51.3%, High Appeal = 66.6%) and interaction results from the present condition X appeal test for exemplification recall parallel those of the previous condition X appeal overall recall result (in Table 8 above). Table 11 below displays the percentages for the exemplified information recall test. Note that, in addition to the effect within the exemplar-only condition, respondents under low coaster appeal learned more exemplified information from the two-sided story than from the one-sided, exemplification-only story.

Table 11

Percentage of Exemplified Information Recalled for Condition X Appeal Interaction

Condition	Low Appeal	High Appeal	Sig. for Condition
Exemplification Only	41.5%	74.4%	p < .01
Base Rate and Exemplification	61.1%	58.7%	not sig.
Sig. per Level of Appeal	p < .05	not sig.	

Note. Means significantly differ by the Tukey/Kramer (TK) method (Hinkle, Wiersma, & Jurs, 1998, p. 394).

Diet Pill Recall Analysis. Contrary to the findings of the roller coaster data, all recall tests for the diet pill story yielded either no significance or a main effect for condition, deciphered by least significant difference pairwise comparison tests. For example, the condition X health ANOVA testing overall percentages of recollection yielded a main effect for condition (F = 10.922, p < .01), in which the base rate condition (30.7%) recalled significantly less information than either the exemplification-only (63.8%) or the combined (52.4%) conditions. Likewise, the main effect from the condition X looks ANOVA (F = 10.537, p < .01) provided almost identical findings, with the base rate group (30.9%) recalling significantly less information than either the exemplified (64.2%) or the base rate and exemplification (51.2%) conditions.

The breakdown between base rate versus exemplified information recollection told a similar story. The condition X health ANOVA offered a significant main effect for condition (F = 5.079, p < .05), showing that respondents in the combined condition (46.6%) learned more base rate data than those in the base rate-only condition (30.8%). Conversely, no significant effect was found for exemplification recollection between the exemplar-only and combined conditions using a condition X health ANOVA.

This was also true in the recall tests using personal looks as the measure of involvement. Here, the main effect for condition ($F = 4.485$, $p < .05$) indicated that base rate information was remembered more by those in the two-sided condition (46.2%) versus those in the base rate-only condition (31.3%). In addition, no effect was found for exemplification information recollection between the exemplar-only and the base rate and exemplification conditions.

DISCUSSION

Three basic effects were witnessed in the present study. The first effect can be said to involve high levels of supportive, affective involvement in a message. Take, for example, the results from the roller coaster story, in which the base rate data supported and the exemplars refuted coaster safety. Respondents with high appeal for coaster riding estimated a significantly higher risk involved in coaster riding than their low appeal counterparts in both the exemplification-only and base rate plus exemplification conditions. In this measure of appeal, a personal, affective evaluation, exemplars were more persuasive under high involvement than under low involvement.

The same effect can be seen for the diet pill story, whose base rate information, in contrast with that of the roller coaster story, refuted diet supplement use, and whose exemplars supported use. In the exemplification condition, respondents measuring high in empathy rated risk significantly lower than low empathizers in the same condition. In addition, high empathizers in the exemplification-only condition estimated a significantly lower risk than high empathizers in either of the other two conditions. This is further evidence that high affective involvement, such as high empathy, coincides with a greater persuasive strength of exemplars, provided that the involvement is supportive in nature.

This effect is in agreement with the findings of Gibson and Zillmann (1994), Jepson and Chaiken (in Eagly & Chaiken, 1993), and the thirteen studies identified by Baesler and Burgoon (1994). The effect also agrees with the finding of Kopfman et al. (1998), that narratives, a form of exemplification, yield stronger affective reactions. It follows, then, that a heightened measure of an affective form of salience would intensify this reaction, resulting in an increased persuasive impact for exemplars. Indeed, research in vividness predicts this.

Fiske and Taylor (1991) said of vivid information that it is more emotional, and because it has a strong affective component, it can impact judgment in an affective manner. Likewise, vividness was also predicted to have more retentive power because it is more prone to mental visualization, a task associated with heightened encoding. Again, this supports the findings of this study, in which the recall results for both the roller coaster and diet pill stories indicate that exemplars are remembered significantly more under high, supportive, affective involvement.

The second effect resulting from this study is that of high levels of supportive, cognitive involvement. In the diet pill story, in which base rate refuted use, respondents in the base rate condition reported significantly higher risks of supplement use if they felt that dieting was of high importance to overall health as opposed to if they did not believe that dieting was important to health. In addition, among respondents giving dieting a high health importance level, those in the base rate-only condition estimated a significantly higher risk than those in the exemplification-only condition. This indicates that base rate data is more persuasive under high, supportive involvement, in which a general, more cognitive evaluation is accessed. However, respondents in the base rate condition recalled significantly less information than respondents in the other two conditions.

Evidence is similar for the roller coaster story, which offered supportive base rate information. Here, respondents in the base rate-only and combined conditions rated risk significantly lower if they had high faith in overall coaster safety versus if they had little faith in safety. This also implies that the base rate data are more persuasive under this high level of supportive, cognitive involvement. However, like the diet pill results, respondents, especially those with high faith, remembered less base rate information.

The above-mentioned base rate persuasion effect, the result of high, supportive, cognitive involvement, is the sister to the second Kopfman et al. (1998) finding that base rate data influence cognitive reactions. This effect coincides with the effect found by Krupat et al. (1997), whose automobile study showed that statistical information can be more persuasive than anecdotal text when the information is highly, cognitively salient. A likely explanation for this phenomenon is derived from the proposition by Petty and Cacioppo (1986), which states that an increased motivation to process leads to objective message processing, which in turn, can enhance the recognition of the strengths of cogent arguments. Because base rate information can be philosophized as being inherently more cogent due to its appearance as being based in scientific fact, the base rate data should be more persuasive under high, supportive, cognitive involvement.

This does not, however, explain why the base rate information under high supportive involvement was not as memorable in this study. Perhaps there is an underlying issue regarding the motivation to recall. The third effect found in this study study implies such a motivation. This effect is that of high refutative involvement.

The other extremes of the involvement measures for both the roller coaster and diet pill stories can be said to be strong evaluations of a counterattitudinal nature in relation with the supportive arguments of the stories. In the case of the roller coaster story, respondents with extreme low faith in roller coaster safety rated risk significantly higher than their high faith counterparts within both the base rate and combined conditions, even though the base rate information supported coaster safety. Similarly, skeptical respondents in the base rate-only condition had significantly higher measures of recall than did the high-faith respondents in the same condition. This is a reasonable finding when one considers the argument from the Elaboration Likelihood Model that prior beliefs will bias the processing of counterattitudinal messages in a negative manner, rendering the messages less persuasive (Eagly & Chaiken, 1993). In addition, as argument scrutiny increases, as in the case of counterarguing, the central processing route is employed, making the cogent arguments more memorable (Petty & Cacioppo, 1986).

Essentially, this third effect is that of counterargument. As McGuire explained it, "attitudes and beliefs are vulnerable to persuasive attack by opposing arguments," (in Eagly & Chaiken, 1993, p. 561) and without an inoculation of the attacking message, receivers of the counterattitudinal message will be more motivated to counterargue. Therefore, respondents under high refutative involvement will give a heightened amount of attention to a conflictive message, and they will be more motivated to recall it. This is what occurred in the present study.

The opposite side of the coin is seen for respondents with little appeal for roller coasters. Under low appeal, respondents in the base rate condition perceived a significantly higher amount of risk than did low-appeal respondents in the two-sided.

base rate plus exemplification condition. More accurately, low-appeal respondents who read the two-sided story were more persuaded by the base rate information than the low-appealers who read the one-sided story. This is the very effect predicted by McGuire, who proposed that receivers of a two-sided message would be more persuaded by the positive arguments (in Eagly & Chaiken, 1993). In addition, under high refutative involvement, respondents in the two-sided condition remembered more information from both the roller coaster and diet pill stories than did respondents in either of the other two conditions. Thus, the results indicate that a two-sided story is more persuasive, more scrutinized, and thus more memorable due to a heightened motivation to recall.

This study lends support to Anderson's idea that salience is "a determinant of information acceptance" (in Eagly & Chaiken, 1993, p. 263). However, it is clear that salience does not simply emulate the "tendency in impression formation research for negative information to be weighted more heavily than positive information," as Anderson also said (in Eagly & Chaiken, 1993, p. 250-251). If this were the case, the results of this study would have shown contrasting effects when comparing the base rate conditions of the two stories, for example. Instead, it appears that receivers of a given message will be more accepting of either the more vivid exemplars or the more cogent base rate information depending upon whether the associated salience is supportive or refutative, cognitive or affective. Herein lie the divergent effects of salience on the persuasive and retentive powers of a message. It is not simply that a high measure of involvement will determine which side or valence is the more influential part of a message. Rather, it is as Ben Kingsley (1992) told Robert Redford in *Sneakers*: "It's all about the information."

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Conceptualizing and Testing the Construct "Impactiveness:" Analyzing the Effect of Visual Stimuli Eliciting Eye-Fixations, Orienting Responses and Memory-Stored Images on Ad Recall

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ABSTRACT

Impactiveness is coined and proposed as a construct consisting of visual stimuli which elicit eye-fixations, orienting responses and/or memory-stored images. It was conceptualized using the seven-step inductive-deductive process outlined by Donohew and Palmgreen and predicated on theories of attention and involvement. Eighty color print ads from Gallup and Robinson's 1996 *Which Ad Pulled Best* were coded and analyzed for impactiveness which was hypothesized to obtain higher recall. Findings seemed to support this hypothesis and validated the construct. However, a closer examination controlling for the effect of product benefit suggested partial support. Implications are discussed.

Advertising recall
Cognitive processing
Content analysis
Visual Imagery

Conceptualizing and Testing the Construct "Impactiveness:" Analyzing the Effect of Visual Stimuli Eliciting Eye-Fixations, Orienting Responses and Memory-Stored Images on Ad Recall

Pictorial stimuli have led to higher ad recall (Edell and Staelin, 1983; Starch, 1966; Unnava and Burnkrant, 1991). At the theory level of the theory-observation continuum, attention and involvement theorists assert that pictures are more memorable than words because of the way they are processed at encoding. A memorial representation of the picture is formulated which is at least, in part, isomorphic to the original stimulus and requires more elaboration than tagging something already stored. When attentional capacity is increased, memory effects are posited as more durable (Anderson, 1980; 1995; Anderson and Reder, 1979; Greenwald and Leavitt, 1984; Kisielius, 1982; Loftus, 1976). This is demonstrated when print advertisements with pictures result in higher recall than those without pictures (Starch 1966), ad photographs are recognized more frequently than ad copy (Shepard, 1967), and high image conditions presenting sentences and pictures elicited higher recall of brand information compared to low image conditions showing only sentences. The way a message is conveyed mediates its information processing and its final outcome (Edell and Staelin, 1983).

At the phenomena level of the theory-observation continuum, print advertising researchers and authors of *Which Ad Pulled Best* (Burton and Purvis, 1986; 1991; 1992; 1996) offer advice on writing and designing effective ads based on their studies of hundreds of ad recall case histories. They emphasize the need to attract the attention of readers through the physical elements of size, color and unusual treatments. In addition, they provide practical copywriting guidelines which include identifying a major benefit, easy-to-see and read copy, relating the product benefit to the audience's need, focusing on the new (product, benefit, use), ad credibility and uniqueness. These guidelines are consistent with those offered in most practical advertising copywriting texts.

The present study employs attentional and involvement theories to conceptualize the construct, "impactiveness." It integrates the attention-related observations provided by professional advertising researchers (Burton and Purvis, 1996) about their clients' ads and the recall of these ads by readers. Finally it tests the construct using these phenomena and examines the performance of individual components of the construct.

Impactiveness

Impactiveness is coined as a term to describe visual stimuli which have the attributes to elicit eye-fixations, orienting responses and memory-stored images from subjects. Its focus is predicated on the assumption that the level or depth to which an incoming message is processed determines its memory effects (Baddeley, 1978; Cermak and Craik, 1979: Craik and Lockhart, 1972; Craik and Tulving, 1975). Eye-fixations, orienting responses and memory-stored images are processes at preattention and focal attention levels, the two lower levels of involvement on a four-level processing continuum. The two higher levels are comprehension and elaboration (Greenwald and Leavitt, 1984; MacInnis and Price, 1987). Processing at higher levels of involvement is associated with stronger memory effects because it requires more cognitive capacity. However, studies have demonstrated memory durability effects at the processing levels of preattention and focal attention (Lang, 1990; Lang, Geiger, Strickwerda and Sumner, 1993; Lang, Bolls, Potter and Kawahara, 1999; MacInnis and Price, 1987), therefore the responses of eye-fixations, orienting responses and memory-stored images are conceptualized as a construct and visual stimuli characterized by attributes eliciting these responses are correspondingly delineated.

Eye-Fixations. In experiments, researchers have found that eye-fixations are not randomly distributed over the picture but are made primarily on specific areas. The higher fixations a picture elicits, the higher the recognition performance (Loftus, 1976). Fixations are made on an area which is "informative," that is, on an object or objects which has/have a low probability of occurrence in the context of the picture and the subject's past experience. For example, an octopus in a farmyard scene elicited more fixations than a tractor in a comparable situation (Loftus, 1976). This finding is reinforced in work on imagery which associates objects in a bizarre way and which results in substantial memory effects (Miller, Galanter and Pribram, 1960). It was suggested that the unusual image created by the bizarre or discrepant association may create a more distinctive memory trace that enhances recall (Nelson, Reed and McEnvoy, 1977). Eye-fixations encode a detail or details which serve(s) to distinguish the picture from other pictures and thus produces a durable memory effect (Loftus, 1976).

Visual stimuli with attributes eliciting eye-fixations include objects in situations where they are not usually or commonly observed. "Attract by being new" is the professional researcher's dictum (Burton and Purvis, 1996). Being creative by using "new idea combinations" is the copywriting text exhortation (Meeske, 1998). A unusual combination, bizarre association or informative object is exemplied in the following example -- A woman wears a lobster on her head instead of a hat in an ad advertising a distinctive clothing store in New York. The discrepant juxtaposition of objects also includes fantasy objects, talking toys and anthropomorphized animals. These are represented by cartoon characters drawn into a reality scene, animated elves baking cookies in a kitchen, flowers springing out from a wall air freshener dispenser, anthropomorphized food items dancing around, the Pillsbury "doughboy," animated talking hand puppets and a talking dog begging for bacon.

Orienting Responses. The orienting response (OR) was first proposed by Pavlov (1927) who described it as a reflex action to environmental stimuli. It consists of mild physiological arousal characterized by increased cortical activity (faster and lower amplitude EEG activity), increased galvanic skin reactions, increased general muscle tone, vascular constriction to the limbs and arterial dilation to the brain, and an increased ability to detect light and sound (Lynn, 1966). Novelty, loud bangs and bright flashes are stimuli eliciting ORs (Reeves, Thorson and Schleuder, 1985). Others include surprise, mismatch, intensity and duration of stimuli regarding tone, frequency and color, scene shifts, extreme acoustical changes and unexpected motion (Reeves et al, 1985, Singer, 1980). An equivalent lesson from professional advertising practice is that color attracts attention (Burton and Purvis, 1996). Also, structural features characateristic of television messages such as edits, cuts and movement have produced ORs (Lang 1990; Lang et al., 1993; 1999; Reeves et al., 1985). In general, ORs improve attention initially. Habituation occurs after repetition. Researchers have found that ORs can lead to improved recall under specific conditions (Lang et al., 1999; Reeves et al., 1985; Thorson and Lang; 1992).

In print advertisements, equivalent visual stimuli eliciting orienting responses include scenarios with strong light or light/shadow contrasts, strong or contrasting color usage and suggested movement. Light intensity is often emphasized by the sharp contrast of shadow and light. This is suggestive of the bright flash discussed earlier. Examples may include a halo of light around a head of freshly shampooed auburn hair, dazzling fireworks in a night sky, glittering diamonds and refracted sunlight through a special photo lens showing a jug of clear filtered water.

Color saturation or when colors appear luminous, brighter or deeper than expected, would constitute the color stimulus. Exemplary scenes include deep red/rose/pink/peach/etc. lips, nail polish, hair color, clothes, cars and the like. The indication of dynamism captured in photographic techniques parallels the movement dimension. Structural features include blurred parts suggestive of movement, freeze-frame transporting a moment in time and time-lapse exposures of car headlights, city lights or dancers in motion and several pictures/scenes spread across a page suggestive of edits.

Memory-Stored Images. Once information is encoded and stored in memory, it is available for retrieval and elaboration (Greenwald and Leavitt, 1984). It follows that the more often it is retrieved and elaborated on, the stronger the creation of memory traces which facilitate faster retrieval. Visual information is better remembered than verbal information because of imagery processing (Alesandrini and Sheikh, 1983; Childers and Houston, 1984; Lutz and Lutz, 1977; MacInnis and Price, 1987; Paivio,1971) and pictures are highly correlated with imagery (Bugelski, 1983; Finke, 1980; Paivio, 1971; Rossiter, 1982; Shepard, 1967), therefore previously stored pictures which are frequently retrieved will have strong memory effects. The word from the professional advertiser is that "when you're competing with one of the most famous faces in the world, you don't have much of a chance." (Burton and Purvis, 1997, p. 3). The implication is that faces are famous because of frequent media exposure through TV and movie performances or news coverage. Faces are made more famous because of the extent of media coverage both in frequency and duration. By associating a product or service with a famous face, this memory-stored image is retrieved and linked with the product. Through association, the latter is also remembered.

Consequently, visual stimuli which elicit memory-stored images are typified by celebrity endorsers. Celebrities are individuals who are celebrated for a particular talent or achievement, e.g TV and movie actors, sports figures, fashion models, opinion and societal leaders, musicians and popular culture icons and the like. Through their repeated media exposure they are familiar faces and enjoy various levels of popularity among the general public, particularly among specific constituencies and demographic segments.

Advertising recall and recognition

Advertising recall has been a consistently examined dependent variable assessing the effectiveness of print advertising. No single measure can provide an overall index of advertising effectiveness but free recall of ad content which is a widely used measure, can serve as an indicator that the ad has been processed at the highest level, elaboration (Greenwald and Leavitt, 1984). Recognition, another frequently used measure serves more as an index of processing at a given level of involvement than of effectiveness at that level. Recognition of picture content indicates processing at the focal attention level while recognition of product attribute claims suggests comprehension-level processing (Greenwald and Leavitt, 1984).

Other variables

Professional advertisers and writers assert that product benefit description is at the heart of the advertisement and exhort beginner writers to name and emphasize specific benefits and how they relate to the consumer's needs (Burton and Purvis, 1996; Meeske, 1998). Highlighting product benefits in advertising content has resulted in enhanced memorability (Burton and Purvis, 1992; Stewart and Koslow, 1989).

Executional devices in the form of sentence length or text and picture size have both been found to promote recall (Holbrook and Lehmann, 1980; Schmitt, Tavassoli, Nader and Millard, 1993; Stewart and Furse, 1984). Both visual and verbal components of advertisements are processed for product information (Rossiter and Percy, 1978) and attitudes can be influenced variously by pictorial and verbal claims (Michell and Olson, 1981; Taylor and Thompson, 1981).

Validity

This exploratory study proposes to test the validity of the impactiveness construct by assessing its content and predictive validity. Validity is an assessment of the congruence between the nature of the object measured and the measurement instrument (Kerlinger, 1973).

Content validity is a judgemental assessment of the representativeness of the content of the measuring instrument. It assesses the match between the operational items and the theorized nature of impactiveness. On the face of it, content validity appears to be present.

Predictive validity is analyzed by comparing scale scores of the construct with one or more external variables or criteria known to measure the attribute investigated (Kerlinger, 1973). The basic interest is in the criterion-related validation rather than in the predictors so that a higher correlation resulting between the indicators of impactiveness and the criterion measure recall would point to a higher validity.

Study Objectives

The present study proposes to analyze the effect of the visual stimuli eliciting eye-fixations, orienting responses and memory-stored images in a sample of 80 print advertisements on the advertisements' recall. In doing so, it attempts to test the construct, impactiveness which is conceptualized to have higher memory durability. The primary research hypothesis was:

H1: Ad impactiveness will result in higher ad recall.

A secondary question is

Q1: Did the presence of individual components of impactiveness in specific ads lead to higher recall of those ads?

Method

The Gallup & Robinson Company, through its Magazine Impact Research Service, routinely tests advertisements for a variety of clients. To date more than 120,000 print ads and 60,000 TV ads have been evaluated. The sample size for each survey is approximately 150 men and/or women, aged 13 and above drawn from ten metropolitan areas geographically dispersed across the United States. Respondents are screened for reading two of the last four issues of the test magazine but not the current issue. They are requested to read the test magazine placed in their home and contacted the following day via telephone for an interview regarding a list of ads. Of those they recall they are asked to describe the ad, its sales points, what they learned about the product/service, their thoughts about the ad, purchase intention and actual purchase or last usage.

Results of some of their tests have been published in *Which Ad Pulled Best?* a popular advertising textbook/workbook for university students. Each edition of *Which Ad Pulled Best?* features forty pairs of print ads tested for recall. For purposes of the present study, the ads were content analyzed in the most recent edition (8th) of the book because it was the only volume which provided 80 color overhead transparency ads for analysis in the present study. None of the previous editions had published color photos of the ads. The authors were contacted and requested to provide color photos of the ads used in the previous edition (1992). They agreed to do so but did not indicate a time frame during which the color ads would be available. At the time of analysis, these color ads had not arrived.

Measures

The ads in the 1996 edition were content analyzed for the following impactiveness dimensions:

Discrepancy between object and context. This item operationalized “informative object.” Each ad picture was coded for the following attributes:

1) Presence or absence of a discrepancy between object and context. This was coded 1 or 0 and used to indicate “yes” or “no” that objects in the picture had a low probability of being there given the rest of the picture and the subject’s past history.
2) Degree of discrepancy observed. If the picture was coded “yes” for discrepancy, then the extent to which the discrepancy was extreme or familiar was noted. 1= familiar discrepancy and 2=novel discrepancy.

The two items were then rescored and summed to obtain a scale of 0 to 2 indicating the degree of discrepancy.

Ad physical atttributes. These items as a whole operationalized the light, color and movement dimensions which elicit orienting responses. Each ad was coded for the following attributes:

1) Light intensity. The presence (1) or absence (0) of light and dark intensity, sharp contrast of shadow and light was coded. These are conditions which draw the eye to the bright intensity object or dark intensity object or contrasting play of light and shadow.
2) Color saturation. The presence (1) or absence (0) of colors which are brighter than expected was coded. These included blues which are bluer, reds which are redder, purples

which are more purple, etc. The color or colors fill(s) the whole scene. The color glows or shines.

3) Dynamism. The presence (1) or absence (0) of dynamism which is captured by the technique used in producing the final image(s) was coded. Movement is suggested in the picture through photographic techniques such as time lapse photography and freeze frame which may result in blurred images or light streaks from car headlights. The action of the activity portrayed e.g. swimming, jogging is independent of the picture dynamism. Also, the presence of many pictures in the layout may suggest a sequence of events and/or movement through "editing."

The three items were summed to obtain a scale of 0 to 2 indicating the extent of physical attributes in the ad tapping orienting responses.

Familiar face(s). This item assessed the extent of memory-stored images. Each ad was coded for the following:

1) Presence or absence of familiar faces. Some faces are highly recognizable because of their media exposure through TV and movie performances and news coverage. These are coded 1 for presence and 0 for absence.

2) Degree of recognizability. This assesses the level of popularity and renown of the face and figure and measures the approximate extent of the frequency and duration of media coverage the familiar face(s) has/have enjoyed in the time frame that the face has been recognizable. Lower recognizability was coded 1 while higher recognizability was coded 2.

The two items were rescored and summed to obtain a scale of 0 to 2 indicating the extent to which familiar faces in the ad matched with and elicited memory-stored images.

Impactiveness. This score (0 to 6) was obtained by summing the scores for discrepancy, physical attributes and familiar faces.

Ad recall. Two recall scores are reported in the instructor's manual for *Which Ad Pulled Best?*:

(a) The recall score for each advertisement;

(b) The ad recall norm for the particular product category.

On the basis of these two numbers, a recall index was calculated by dividing the recall score by the recall norm. This was an attempt to standardize recall scores across the sample of advertisements analyzed and was a necessary step because of the variety of products and product categories tested by Gallup & Robinson and the wide range of recall norms. The mean recall index would be 1 and anything above or below this would indicate a higher or lower memory performance for the ad.

Other variables.

Product benefit was measured and coded as 0 if no benefit was mentioned, 1 if the benefit was vaguely mentioned and 2 if the benefit was clearly indicated. The extent of the picture and text was also noted. The picture and text proportions of the ad (0-25%, >25 to 50%, >50 to 75% and >75 to100%) were recorded.

Coder reliability. Two coders analyzed the 80 ads for impactiveness independent of each other and intercoder reliability was assessed on a subsample of 12 randomly selected advertisements. Intercoder reliability using Holsti's formula was 84%. The coders did not have access to the recall scores at the time of the coding.

Analyses. Pearson correlations were run to assess the relationship between impactiveness and the recall index. In addition, the individual components of impactiveness and their individual attributes were correlated with recall. Subsequent correlations were run controlling for product benefit. The probability level was set at a 95% level of confidence. Frequency distributions, condensed descriptives and crosstabulations were profiled for selected variables.

Findings

The ads analyzed represented a wide variety of 12 product categories ranging from the frequently occurring categories of personal care and electronics (both 20%), packaged foods and beverages (17.5%), and automotive (12.5%) to clothing and footwear (7.5%), hotels and resorts and appliances (both 5%). Other categories comprised home furnishings, financial services, household care, vitamins and medicines, and pet products (all 2%).

The percent of ads containing the key component variables of impactiveness ranged from 5% to 63.8% of the ads. See Table 1. Therefore, results may not be very reliable. Overall scores ranged from 0 to 4 with a mean of 1.89 (sd=1.03). There did not appear to be any overlap between the components of impactiveness as none of them correlated significantly with one another.

Table 1 About Here

The recall index ranged from a low of .07 to a high of 2.2 (mean 1.03, sd=.60). It had a small, positive relation with impactiveness (r=.19, p<.05), thus hypothesis 1 seemed to be supported.

When the individual components of impactiveness were correlated to recall, only physical attributes which elicited orienting responses (r=.22, p<.025) and familiar faces which elicited memory-stored images (r=.25, p<.025) were statistically significant. Discrepancy which elicited eye-fixations had an insignificant, negative relationship. Consequently, partial support for the hypothesis was present.

The frequency distribution of the discrepancy variable and its constituents was examined. A minority of the ads (36.3%) included discrepancy. Of these, 27.5% represented familiar discrepancies while 8.8% were new discrepancies. A crosstabulation of discrepancy degree and familiar faces indicated that the effect of familiar faces was derived solely from ads which were not coded as discrepant pictures. This eliminated the possibility that familiar discrepancy may have been confounded by the familiarity in familiar faces.

Recall was correlated to product benefits ($r=.38$, $p<.001$) but not to picture or text proportion in an ad. Further partial correlations controlling for the effect of benefits in the presence of impactness and its components and attributes revealed that only memory-stored images ie., familiar faces ($r=.26$, $p<.01$) and the orienting response elicited by the physical attribute, color ($r=.23$, $p<.025$) had independent effects. Again, partial support for the hypothesis was present.

Discussion

The discussion begins with a recap of the research hypothesis and question:

H1: Ad impactiveness will result in higher ad recall.

Q1: Did the presence of individual components of impactiveness in specific ads lead to higher recall of those ads?

Ad impactiveness as a construct in its entirety did not result in higher ad recall once product benefits were controlled. However, the individual component of memory-stored images, in this case, familiar celebrity faces, resulted in a durable memory effect and so did the attribute of color saturation from the orienting response component. The other conceptualized components and attributes of impactiveness did not appear to have an effect. Predictive validity was partially present and partial support for the hypothesis was found. This suggested that the construct needs to be further refined and tested. It is possible that other components at the preattention and focal attention levels merit consideration.

In view of the small sample size of ads used in this study, the result should be validated with a larger sample of ads. In addition, the relatively limited presence of key variables in the ad pool obtained from Gallup and Robinson points to a future effort involving the active selection of ads from various sources which contain specific components and attributes of impactiveness. Experimental testing would be the preferred method of data collection with the experimental visual stimuli tested for eye-fixations, orienting responses and recognition of celebrities. In addition, a subject pool representative of men and women aged 18 and above who are geographically distributed across the U.S. would be ideal.

Another limitation of this study consists of the 84% inter-coder agreement regarding impactiveness. In the present study, coders found the current impactiveness content analysis scheme clear and the explanation and examples helpful. However, coders' past histories may have influenced the coding of discrepancy as this is contingent on the range of ad exposure. What may be a familiar discrepancy to one coder may not be to another. Also, when faced with actual pictures, the principles may have been harder to apply. Therefore, further work on clarifying the content analysis coding scheme may be needed. As well, substantive training of coders and additional practice sessions and discussion may be necessary in the future in order to help coders better apply the coding principles. It may also be helpful to include a coder who typifies the target group tested or who belongs to the same age group and social/cultural milieu. It is not surprising that more practice at observing is needed. Since this is an exploratory study, these findings could be interpreted as indicative of trends and will be further examined in future research with stricter standards of reliability. Much awaits investigation.

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Table 1. Percentage distribution of impactiveness variables and attributes among the ads

Impactiveness Variables	**% Percentage "yes"**
Discrepancy	36.3
Orienting Response Stimuli:	
Light Intensity	63.8
Color Saturation	40.0
Dynamism	32.5
Memory-Stored Images (familiar faces)	5.0

Issues in Qualification of Electronic Internet-based Sources for Academic and Business Historical Research

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Issues in Qualification of Electronic Internet-based Sources for Academic and Business Historical Research

(I) : Introduction and background

Sources of information in Internet – based mass media

Media historians, journalists and educators have long regarded techniques for qualifying sources as a vital professional skill. But what about the emerging electronic mass medium? Can it be regarded merely as a new technological vehicle for sources of information, or a new set of skills and practices have to be devised for generating, presenting and referencing content? As a professor of mass communications says: "Numerous factors are combining to overturn traditions that for generations dictated the routines of newspaper staffs. Among the most obvious is the flurry of technological advances that has resulted in a step forward from manual typewriters and Linotype machines to the computer age."[1] The important question every media researcher has to answer is whether this "flurry of technological advances" will change the ways historical sources are qualified for the purposes of academic and business research into history of mass communication. Fortunately, electronic (Internet-based) media possess many characteristics similar to "traditional" mass medium. This means that online media displays parallels to traditional media, such as print and broadcasting. Thus, online media professionals exercise ethical, professional and technical constraints similar to their counterparts in traditional media[2].

Purpose of the study

This paper attempts to summarize the existing techniques for qualification of Internet-based sources, specifically those used for academic and business historical research. These techniques will be compared with the techniques for qualifying "conventional" mass communication sources (print, radio and television), and patterns of combined usage of such techniques will be outlined. For the purposes of this study "qualification of electronic sources" is defined as *identification and classification of available sources, conducting appropriate evaluation, exercising external and internal criticism and uncovering possible copyright issues*.

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[1] Hillard, J. & Hines, R. (1994). Opinions of journalists on headline traditions. Newspaper research journal, 15 (4), p.2.

[2] For an in-depth discussion of this topic see Byrd, J. (1996). Online Journalism Ethics: The New Frontier. The American Editor (n.d.). The American Society of Newspaper Editors; Singer, J. (1996). Virtual Anonymity: Online Accountability and the Virtuous Virtual Journalist. Journal of Mass Media Ethics, 11 (2) 38-46; Eisenberg, D. (1988). "The Electronic Journal", Scholarly Publishing, 20, 49-58; etc.

The paper attemps to contribute to the general understanding of both commonalties and differences in nature between "conventional" and Internet-based mass communication sources, as well as to the methodology of combined use of "conventional" and Internet-based sources in business intelligence and academic historical research of mass communication channels.

The adaptability of some of the existing qualification techniques, as well as the need for new Internet-specific techniques will be discussed in terms *of authenticity, accuracy, authority, objectivity, currency*, and *coverage*. The two main dimensions of qualification techniques analysis, borrowed from methodology applied to traditional media, are "evaluation" and "criticism". Strategies for combined use of "conventional" and Internet-related sources, as well as techniques for their qualification, are outlined with brief examples.

(II) : Qualification of sources in traditional media

Mass communication researchers have a true plentitude of sources to base their research upon. In fact, some historians describe the amount and variety of sources in mass communication history as "the burden of abundance". Different historians deal with the "burden of abundance" in different ways in terms of classification and evaluation of sources; most authors, however relate the processing of historical sources to two broad activities that pertain to qualification of sources: *discovery and classification of sources* and *criticism*[3]. The present authors will attempt to summarize the existing techniques for qualification of sources, adopting classification, evaluation and criticism as the main processes in qualification.

Classification of sources

Classifications of sources adopted by historians vary greatly, depending on the particular field of inquiry, type of study and perceived usability of sources[4]. The majority of historians adopt the "primary – secondary" dichotomy as the broad base for their classifications, and then classify sources by type of representation (written, oral, audio, video, etc., with further subcategories). The majority of authors offer fairly simple concepts of classification including two broad categories of sources based on the relationship of the source to the event it represents ("primary" vs. "secondary" sources). *Primary sources* are defined as either original documents or contemporaneous records or records in close proximity to some past occurrence" [5]. *Secondary sources* are those which "rest on primary sources" or "…are not contemporaneous with the subject under study"[6]. Several other factors that depend heavily on the peripheral circumstances of the source further develop the distinction between primary and secondary sources:

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[3] For example, see Nevins, A. (1975). The Old History and the New. R. A. Billington (Ed.) Allan Nevins On History. New York: Charles Scribner's Sons.

[4] Startt & Sloan (1989) point out to the usability of sources, as perceived by a historian, as a justification for different procedures of sources classification and evaluation historians use..

> The distinction between primary and secondary sources is more involved than one might think. [...] An immediately recorded, eyewitnessed account of an event and a direct written command are examples of pure primary records. Yet, the primary status of a personal record is often not that clear. [...] The answer depends on the physical proximity of the recorder to the accident, the extent of time between the accident and the composition of the written record, and the object of historian's research.[7]

The authors classify sources according *to type of technical representation*, categorizing sources into eight groups: original written records, published personal records, published official documents, secondary written sources, statistical sources, oral sources, pictorial sources and physical remains. Oral, audio and video evidence are omitted from this classification as separate groups[8]. Allan Nevins' work offers important ideas that help to enhance this classification, especially in its somewhat generic view on media sources[9]. A more complex classification of sources is represented in a fundamental work on historical method by Gilbert J. Garraghan[10]. Starting with the assumption that historical sources are "traces" left behind by past events", the author then defines an important category of sources – "products of human activity" (which, naturally, encompasses mass communication sources) divided into sources that "were designed to communicate historical knowledge, and such as by their character automatically serve the same purpose)[11]. Garraghan proposes one of the most useful multi-level classifications of historical sources – "products of human activity"[12], that can be represented here by the following typology:

1. Classification by Origin:
   - Time of production (sources: *contemporary, quasi-contemporary, remote*);
   - Place of Production (sources: *domestic, foreign*);
   - Author's Manner of Obtaining (sources: *immediate, mediate*)[13];

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[5] Startt & Sloan (1989), p.114.
[6] Ibid.
[7] Ibid., p.115.
[8] Ibid., p.122.
[9] E.g. see Nevins, A. (1975) History and the Newspaper, Nevins, A. (1975) The Old History and the New in R. A. Billington (Ed.) Allan Nevins On History. New York: Charles Scribner's Sons.
[10] Garraghan, G., S.J. (1973). A Guide to Historical Method. J. Delanglez, S.J. (Ed.). Westport: Greenwood Press.
[11] Garraghan, (1973), p.103.
[12] Garraghan (1973), pp. 104 – 123. Note that one categorization offered by Garraghan and not discussed in this paper is *divine* vs. *human* sources.
[13] Apparently this category corresponds to "witnessed information" and "gathered information" in some later classifications of sources for business historical research.

- Personal Status of the Author (sources: *private, official*).

2. Classification by Content:
   - Political;
   - Social;
   - Religious;
   - Economic;
3. Classification by Aim:
   - Formal ("conscious intent on the part of its author [...] to communicate information of a historical nature"[14])
     - Official sources (government records, church records, organization records)
     - Unofficial sources
   - Informal
4. Additional classification: by Narrative Type of Source:
   - Inscriptions;
   - Genealogical materials;
   - Calendars;
   - Annals and Chronicles;
   - Histories of any kind conceived as records of the past;
   - Biographies
   - Autobiographies, memories, diaries, journals, letters
5. Additional classification: By Media:
   - Transmitted by word-of-mouth (oral);
   - Transmitted by picture of figure;
   - Transmitted by writing

Chart 1: Garraghan (1973) - Classification Topology

This study's subsequent analysis of electronic sources classification will be based to a large extent upon Garraghan's classification.

Evaluation of sources

Evaluation is usually the next step in processing an historical source[15]. One finds a variety of techniques and definitions, ranging from rather generic (evaluation as a decision making process aimed at discrimination between what is true and what is false in historical evidence) to very detailed (evaluation as a complex set of methods developed specifically for each class of sources and for each area of historical inquiry). While some authors consider evaluation of sources and criticism as two distinct steps in the process of qualification of historical sources, many combine them together under the name of criticism. Some authors use the term "evaluation" to signify two different processes: determining which classification category a source belongs (whether the sources is primary or secondary, written or oral, etc.) and exercising criticism of the source (dealing with issues of relevancy, originality, authenticity, credibility etc.)[16]. Garraghan describes evaluation techniques as a part of the process of criticism, calling them the "three outstanding and most significant points of inquiry in the entire process of the critical examination of sources"[17], which the author labels as "genuineness, integrity and credibility"[18]. The evaluation is then considered to be a necessary prerequisite to both *internal* (genuineness and integrity) and *external* (credibility) criticism. Barzun & Graff [19] in their analysis of the research process skip evaluation almost entirely, concentrating instead on techniques of criticism (collation, fraud detection, attribution, explication, and clarification, authorship, etc.).

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[14] Garraghan (1973), p.109.

[15] It is important to note that the system of classification of sources adopted by a historian is one of the factors determining the scope of evaluation techniques available for her. A thorough multi-level system of classification may be instrumental in helping the researcher to determine appropriate methods of evaluation. Note that the variety of conflicting terms and definitions of issues in evaluation is explained to a large extent by differences in classification systems adopted by historians.

Allan Nevins, on the other hand, stresses the importance of evaluating mass media sources before exercising criticism. Writing about newspapers as historical sources, he contends:

> Obviously, it is futile to talk of accuracy or inaccuracy, authority or lack of authority, with reference to the newspaper as a whole. The newspaper cannot be dismissed with either a blanket endorsement or a blanket condemnation. It cannot be used as if all its parts had equal value or authenticity. The first duty of the historical student of the newspaper is to discriminate. He must weigh every separate department, every article, every writer, for what the department or article seems to be worth.[20]

Nevins maintains that each "class of sources" demands a different approach by a historian. Information drawn from official sources generally requires less (and different) checking as the "subjective factor" is minimized. Newspaper articles written by more "authoritative" authors are different from the rest of information, and so on. The general position of the newspaper, its "strengths and weaknesses", has to be taken into account before applying criticism to its articles as sources. Nevins feels that such evaluation of the sources (i.e. applying proper classification) enables a researcher "to go to those sources which are best" [21].

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[16] See Startt & Sloan (1989); etc.
[17] Garraghan (1973), p.169.
[18] Ibid.
[19] Barzun & Graff (1985).
[20] Nevins, A. (1975). History and the Newspaper. R. A. Billington (Ed.) Allan Nevins On History. New York: Charles Scribner's Sons, p.271.
[21] Ibid.,p. 274.

Criticism of sources

Criticism is the final step in qualification of historical sources. Garraghan[22] identifies at least six distinct steps or "problems" that is related to the process of criticism:

(a) Establishing the Date of Production;
(b) Localization of Production;
(c) Authorship;
(d) Analysis of pre-existing material;
(e) Integrity;
(f) Credibility (evidential value).

Adopting the terminology developed by Bernheim and other German historians at the turn of the century, Garraghan then assigns steps (a) through (e) to *internal criticism* and step (f) to *external criticism*. He further groups steps (a) to (d) as constituting *higher* criticism, while step (d) is termed *lower* or *textual* criticism[23]. Thus, higher criticism deals with problems of dating, localization, and authenticity, while textual criticism is applied to the problem of textual integrity. Farraghan concludes:

> These six distinct inquiries exhaust the whole process of historical criticism, which may be defined as the use or application of a body of rules and principles for testing the genuineness of historical sources, restoring them as far as possible to their original form, and determining their evidential value.[24]

He adds: "Criticism, external and internal, is to be differentiated from evidence, external and internal"[25]. Barzun & Graff see criticism of sources as a set of methods primarily aimed at dealing with problems of external criticism (or "verification" in the authors' terminology[26]). They mention such methods as verifying complex facts by collation; dating and localizing documents; cross-checking information in mass media sources; attribution using direct signs or concurrence of indirect signs and identification (authorship); and putting sources "in perspective" by means of explication and clarification.

The available classifications of media sources provide a good basis for correct evaluation of their strengths and potential "problem areas" and enable the researcher to choose appropriate methods of criticism. Now this study will discuss how inherent differences between traditional and Internet - based media affect the steps to be taken, and techniques to be applied, for qualification of Internet - based media sources.

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[22] Garraghan (1973).
[23] Ibid., p.168.
[24] Ibid., p.168.
[25] Ibid., p.169.
[26] Barzun & Graff (1995), p.112.

(III) : New dimensions in qualification of electronic sources

Existing work on qualification of electronic sources

One of the biggest challenges this study faces is that almost no prior academic research exists on the subject; the majority of the relevant literature is of a non-academic nature[27]. This literature is, however, full of evidence of the growing importance of the Internet-based sources of information. The huge impact of the Internet upon information research and strategies, production and presentation of content, and referencing information is evident. Obviously, this changes the ways sources of information are processed in mass communication historical and business research. David Noack contends that "[i]n a trend that marks a fundamental shift in philosophy for newspaper companies, many are now routinely "scooping" themselves by posting breaking news stories on their Web sites long before those same stories appear in the print edition"[28]. This is easily applicable to organizations in any medium, not just newspapers. At the same time, many studies report that original published news content on the Web is on the increase[29]. A Ross & Middleberg survey study reports that, in 1998, 20 percent of newspapers with Web sites said original content constituted at least 50 percent of those sites. In 1997, only 7 percent of newspapers with Web sites said that 50 percent or more of the site's content was original[30]. The trend towards increasing "Internet-only" content is evident.

Many media organizations are beginning to create combined news operations in which their traditional and "cyber" staffs operate as a single content production force[31]. In addition to the hundreds of thousands of potential historical sources produced by traditional media, hundreds of thousands are produced by Internet - based media itself. The mechanisms of generating and representing these sources have significant distinctions from those with which traditional media sources are generated and represented, significant enough to warrant different strategies for qualification. For example, some works point out that the hypertextual representation of content on the web changes certain characteristics of content, particularly news content[32]. John December, e.g., stresses a "subjective" factor (technological determinism, or belief that in a new medium the message should also become "different" in its form) that might further influence online content as sources of information[33].

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[27] Some important research on distinctive structural characteristics of online content has been done by new media promotion professionals for obviously non-academic reasons. This however, doesn't, in our view' invalidate the research itself, particularly in terms of concepts it contains.

[28] Noack, D. (1998), Newsroom Bend To Internet. Study documents widespread change. Editor & Publisher Interactive. [Online]. Available: http://www.mediaINFO.com/ephome/news/newshtm/stories/021398n3.htm.

[29] Ross, S. & Middleberg, D. (1998), as cited in Noack, D. (1998),

[30] Ibid.

[31] Ibid.

Much more extensive work in this area has been done by non-academic researchers, particularly in the area of business intelligence gathering. The following analysis attempts to identify some of the important distinctions in the ways content is produced in Internet - based media.

Three dimensions of difference defined

The present authors define three main groups of factors that contribute to the differences between sources in electronic and traditional media: *technical, ethical and professional*. Although discussed separately, these three groups of factors are interdependent.

Technical dimension

The principle of statistical sharing ("maximum available resources to maximum people at any given time") which the Internet is based upon, as well as the publishing model adopted by Internet-based media ("many to many" vs. "one to many" in the traditional media) present serious obstacles to conducting internal criticism of Internet sources. Many authors compare the Internet to a huge library. The inherent "volatility" of this library's content, however, presents a researcher with some concerns about the credibility of the source and the possibility of referencing it in further research. Problems are serious enough to sustain a view - widely held among academics - that an Internet document which does not have a hardcopy equivalent can not be considered "properly published". As Michael Arnzen puts it, " [A] problem with the virtual library metaphor is that many Internet "books" can disappear off the shelf with the touch of a Webmaster's delete key, leaving the student in a quandary if he or she wants to borrow the book again—or worse, leading to charges of poor ethics"[34]. In his 1996 article "Cyber Citation", he points out some of these problems: "There is an inherent paradox in referring to a "virtual" source for credibility in a research paper: The document might be authoritative, but it doesn't really "exist" because it hasn't been permanently inscribed into the ruling medium of documentation - namely, paper."[35] The author suggests several strategies to enhance credibility of referenced electronic sources; these strategies include having a backup of the referred source, in case the electronic original is removed and also to avoid any doubts in the authenticity of reference the future reviewers may have; and referring to a printed source, wherever possible[36].

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[32] December, J. (1992).
[33] December, J. (1997), p. 3
[34] Arnzen, M. (1996). Cyber Citations. Internet World, 9.[On-line]. Available: http://www.Internetworld.com/print/monthly/1996/09/cybercitations.html
[35] Ibid.

The ease of updating electronic sources can sometimes decrease the accuracy of the source. Blackman cites the opinion of attorney Elliot Chabot, who heads the automated legal support team for the U.S. House of Representatives : "[The choice whether to use Internet versus conventional sources] becomes a function of how important it is to have the most accurate and the most up-to-date version of the material"[37].

Ethical dimension

The ethical discourse has just begun in the online communications world. Christina Ianzito states that ethical rules of "off-line" journalism can not be automatically applied to online journalism and that the latter still has to develop its own ethical standards. The first generation of online journalists don't yet have a professional code or model to follow, and are thus creating new ones[38]. A 1996 monograph on the philosophy of online journalism edited by Charles Ess suggests that new media will establish new modalities of thought and practice, while simultaneously recovering older such modalities currently displaced by print culture. One such modality, which has specific importance for the present analysis, is group authorship.

The American Society of Newspaper Editors' Journalism Values Institute has revised the core values of journalism. A number of articles suggest directions of analysis for these values applied to online journalism. In her 1996 article "Online Journalism Ethics: A New Frontier", Joann Byrd offered new definitions of the principles of "fairness" and "accuracy" and suggested the following dimensions: *Balance / Fairness / Wholeness; Accuracy / Authenticity; Accessibility; Credibility*, and *News Judgement*. The flexibility of layout and information flow makes it easier for an online journalist to include "outside" information and make personal judgments transparent. Byrd contends that this may bring in the problem of credibility of a story: "Would it be self-serving or public service to weigh in on the credibility of other people's sites?" [39].

Fred Mann gives this statement a practitioner's perspective: "Today, in the online world, the challenges to traditional journalistic values and ethics are major"[40]. In the online world, the author contends, the lines between journalist, editor and publisher are often blurred. The same sentiment is expressed in Steve Weinberg's comments on investigative journalists such as Robin Palley and Charles E. Shepard[41]. Weinberg expresses his concern for original investigative reporting in cyberspace, due to the blurred line between online journalists and publishers.

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[36] *Ibid.*

[37] Blackman, J. (1997). Excerpt on the Accuracy of Internet Resources. [On-line]. Available: http://www.law.ab.umd.edu/marshall/workshop/blackman.htm

[38] Ianzito, C. (1996). It's a job but is it journalism? Columbia Journalism Review, 35, p.37.

[39] Ibid.

It has not yet been determined how this translates into the balance of a "typical journalist's" ethics and a "typical publisher's" ethics online. Two issues have been discussed in both off- and online literature particularly often: those of *hyperlinking* and *online anonymity*. In a 1994 study, Jane B. Singer found that online anonymity is not an entirely bad thing: she proposed that computers in fact create an electronic "Veil of Ignorance" facilitating free exchange of opinion, especially about politics.

Professional dimension

The first problem that electronic sources present to any classification is the abundance of new forms and of publishing. For example, e-mail messages exchange can no longer be considered "private correspondence" to the same extent conventional mail messages are, due to the technical nature of this process. Postings to newsgroups do not have an equivalent in the "off-line" world. For many forms of potential sources, new classification categories still have to be found (a good example is interactive animation on the World Wide Web or "electronic postcards"). These new forms of publishing invalidate to a large extent the existing forms of evaluation and criticism of sources.

Two reciprocal tendencies are evident in the Internet - based media world that greatly complicate the process of classification of sources: On the one hand, the "many to many" model of publishing and relatively insignificant cost of entry to the Internet media markets dramatically increase the number of authors and publishers in Internet - based media. Many of these new entrants, although providing potentially useful (and in many instances, unique) historical sources, do not have the necessary skillsets to handle this information and present it in a way compatible with the adopted practices of good journalism. In this situation, the "subjective factor" (discussed in the previous chapter) greatly affects the suitability of a source for qualification. High probability of bias and tempering with evidential value (omissions, forgery, etc.) increase the need for enhanced evaluation and external criticism procedures. Currently, no standards exist on the Internet to ensure accuracy.

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[40] Mann, F. (1997) Do Journalism Ethics & Values Apply to New Media? [On-line]. Available HTTP: //www.poynter.org/research/me/nme/jvmann.htm.

[41] Weinberg, S. (1996) Can 'content-providers' be investigative journalists? Columbia Journalism Review, 35 (4), 36-38.

The un-professionalism of "new" publishers and authors in such areas as referencing, attribution, dating etc., as well as the technical ease of "borrowing" material, present additional problems when performing internal criticism (particularly authentication) of the sources.

On the other hand, the unique quality of the Internet to serve both as a publishing medium and a depository of "raw" information prompts many journalists and publishers to use it as both. This creates a "credibility gap" that Arnzen discusses in the following terms:

> One of the best--and worst--elements of the Internet is that anyone can publish anything. On the plus side, you'll find sources on the Net you probably wouldn't find any other way. It also means you can find not only texts, but people who share your research interests. On the other hand, not every source that turns up in a WebCrawler search will be reliable[42].

The author suggests the methods of collation, cross-checking and comparing claims and evidence of several sources as means to reduce the doubts as to when to date, localize or attribute a source.

Some recent research into group knowledge and document creation on the Internet prompts for new perspectives on attribution and determination of authorship during qualification of sources. The ability of the Internet to provide new forms of collaboration for knowledge creation leads to what has been described by Brendt[43] as "collective ownership" of knowledge in a "cybernetic tribe".

Another factor is the purely economic pressures online media practitioners must withstand. The sponsorship model is attractive to web publishers because sponsored sites seem to be well suited to the Web[44], yet retain important parallels to traditional media. As the medium has matured during the last few years, there have been fewer "self-employed" online journalists and more "corporate staff" among electronic journalists; consequently, more "brand name" stories have been published compared to "independent" ones. It is easy to see why the lines between news content and sponsored content become (sometimes intentionally) easily blurred. The agendas of sponsors and publishers are almost never clearly stated. This undoubtedly has a profound effect upon online gatekeepers and influences methods of external criticism of electronic sources, and further complicates internal criticism of sources.

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[42] Arnzen, M., (1996), p.2.

[43] See Brent, D. *"Oral Knowledge, Typographic Knowledge, Electronic Knowledge: Speculations on the History of Ownership"* .EJournal #1-3 (November 1991). [On-line]. Available: http://rachel.albany.edu /~ejournal/ v1n3/ article.html.

[44] For a detailed discussion of this aspect see Hoffman & Novak, 1996.

Strategies developed by business researchers

Business researchers suggest several integrated qualification techniques for historical sources. A technique proposed by Harris draws upon the CARS checklist (Credibility, Accuracy, Reasonableness, Support). The author views evaluation and criticism of sources as a single process[45]. Qualification of a source is seen mainly as a series of tests – involving both the criticism of source and review of technical aspects of its presentation - for information quality along several dimensions:

- Credibility
  - Author's credentials;
  - Evidence of quality control (peer reviewing, approval by authority etc.);
  - Metainformation (both textual –abstracts, summaries - and "technical" – HTML meta tags).
- Accuracy
  - Timeliness;
  - Comprehensiveness;
  - Audience and Purpose;
- Reasonableness (this test largely parallels Garraghan's (1973) *classification by Aim* and *by Content*).
  - Fairness;
  - Objectivity;
  - Moderateness;
  - Consistency;
  - World View;
- Support (this is a test of corroboration of information – note similarity to criticism techniques describe by Barzun and Graff (1985))
  - Source Documentation & Bibliography;
  - Corroboration;
  - External Consistency.

Chart 2: Harris (1997) - Classification Topology

Ciolec points to early attempts to "self regulate" website content as an information source by several Internet organizations:

> The 'evaluative' activities seem to form two main streams: (a) individual work on creation of checklists or "toolboxes" of criteria that enable WWW information sources to be assessed, and (b) commercial, long-term projects aimed at the periodical reviews and gradings of large volumes of online material. In the first case, the emphasis is on finding how the overall quality of the networked resources can be meaningfully discerned, analyzed and compared[46].

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[45] In fact, he calls procedures of placing a source to a classification category "pre-evaluation". For more detail, see Harris, R. (1997). *Evaluating Internet Research Sources*. [On-line]. Available: http://www.sccu.edu/faculty/R_Harris/evalu8it.htm .

[46] Ciolec, (1996), p.45.

The author lists some of the proposed indicators of quality of the electronic sources, such as ease of access, good design, uniqueness of information , usefulness and trustworthiness, scope (breadth, depth, time, format [type of resources covered]), accuracy, currency, authority, format and appearance, audience, purpose, workability (user friendliness, search facilities, connectivity), ease of identifying the meta-data (the authority of authors, the currency of information, the last update, the nature of the updates), and stability of information[47]. Ciolec notes:

> The work on evaluative approaches, scholarly and commercial alike, has barely started. It raises, however, a number of methodological questions. [....] Firstly, the selection criteria used in the reviewed evaluative procedures tend to be very general indeed. Concepts such as 'ease of access' or 'user-friendliness' or 'crisp page layout', 'detailed meta-data' seem to be applied to the online materials in a very general fashion, as if all documents and all resources were written in the same natural language, had the same complexity, same structure, and served the same purpose. Can one really use the same vague, impressionistic concept to compare a single document with a collection of research papers, and finally, with a large-scale electronic archive? One would think not[48].

Brandt contends that while information quality of the sources is on average inferior to on the Internet then in traditional media, it can to some extent be compensated by greater pre-evaluation opportunities during Internet searches. The author asserts:

> The selecting function is achieved through one of two basic methods. One is to have people register or submit Web pages or links, and/or to have people search them out for inclusion. This method tends to be highly selective and thus somewhat evaluative. Yahoo! (http://www.yahoo.com/) is an example of such a database. The other is to use the Internet capability to send a request to a server to find any or all Web pages and links maintained there. This method is used by Lycos http://lycos11.lycos.cs.cmu.edu/). It tends to be comprehensive but is virtually non-evaluative. Analogously, this is comparable to the difference between a library collection and a systematic survey of bookstores, newsstands, information counters, and file cabinets of public institutions. Obviously, evaluation techniques are especially needed for the latter. Likewise, the information compiling function for a search engine's database is achieved through one of two basic methods. Again, one uses human intervention and the other simply automates the function. Search engines

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[47] Ibid., p.45.

[48] Ibid., p.46.

such as Magellan (http://www.mckinley.com/) employ evaluators to rate various pages against criteria for reliability and usefulness. Lycos, on the other hand, strives for comprehensiveness in its attempt to *index* the entire Internet, and it seeks to add any and all information it comes across[49].

The present authors define this process as another - "Internet-specific" - dimension in electronic sources qualification - *pre-evaluation* of sources.

(IV) : Proposed Strategies for electronic sources qualification

As a mass communication medium the Internet is inherently ambiguous. The need for reduction of ambiguity is obvious to any researcher who uses electronic sources for academic or business historical research. This calls for new "enhanced" techniques in qualification of electronic historical sources. The new techniques will have to take into account several new aspects of Internet as a communication medium:

Technical[50]*:*

- the statistical sharing principle;
- the "*many to many*" publishing model;
- high level of multimedia integration;
- pre-evaluation capabilities of Internet indexing and searching resources;
- the ability to have "meta" – and structural information"concealed" in the source code

Ethical:

- leadership;
- accessability;
- blurred line between online journalists and publishers;

Professional:

- collaborative creation of documents and collective ownership of knowledge;
- new entrants in online journalism and publishing;
- blurred line between online journalists and publishers;
- high relative share of sponsored content;
- "credibility gap".

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[49] Brandt (1996), p.2.

[50] For detailed discussion of the items in the list please see (III) ; Qualification of Electronic Sources.

A generic strategy for qualification of electronic sources on the internet will have the following steps:

Pre-evaluation. This is a good opportunity for a researcher to sort out the potentially relevant sources and also evaluate the scope of available sources on the Internet. Before looking at the actual source the researcher might take advantage of numerous "pointers" on the Internet that provide abstracted content and/or reviews of the actual sources. Sources can either be reviewed by humans or computers. For example, a source may be reviewed (and a link can be provided) in e-mail newsletters and websites with established credibility, editor's reviews in one of the many search engines available online, or an academic web-based database. Sources' keyword relevance can also be assessed by computer heuristic procedures which produce relevance listings in search engines. Listings in directories, such as Yahoo!, are in fact a mixture of the first two categories: they are arranged by keyword relevance, but their initial placement in the directory depends upon the opinion of a human reviewer. In some cases (postings to mailing lists or newsgroups, for example), a researcher can rely only on keyword relevance listings produced by search engines (Lizsht, DejaNews, etc.). Familiarity with the heuristics of a particular search resource and established credibility of the reviewer will be key elements in pre-evaluation.

Classification. In this step, a researcher would try to assess certain key characteristics of the source and place it into categories according to these characteristics.

Classification by origin will have to include establishing the time of production, author's manner of obtaining the content (if secondary source), author's credentials (direct or indirect) and place of production of the document. In some cases, careful investigation should be conducted to determine possible difference between *place of production* and *place of representation*. For example, a document represented on the Web server www.sourceserver.ne (the Netherlands, according to the domain suffix) may be actually produced and served by a Russian author in St. Petersburg and simply mirrored or having an entry page in the Netherlands. Evidence of group authorship should also be taken into account, for such purposes as proper crediting.

The classification by content is rather simple – political, social, religious, economic, personal. Note the category "sponsored content", which is characteristic to organizational websites and is very often disguised as editorial.

Classification by aim follows the basic steps proposed by Garraghan (1973): formal (official sources, unofficial sources) and informal. With Internet-based sources, however, it is necessary to add another category – "corporate-unofficial" – to the formal classification. All "personal" e-mails and newsgroup postings made by corporate webmasters, for example, will fall under this category.

Classification by media consists of several conventional (audio, graphic, video, text document) as well as Internet-specific (hypertext, platform-independent document, interactive animation) categories. It is important to note that of all these types of sources, hypertext has usually highest percentage of "group authored" documents.

A classification that is truly unique for the Internet is by producer with categories – "human" and "computer". While the first category is obvious, some types of documents (such as abstracts or composite abstracts) created by search agents, as well as server logs, etc., will fall into the second category.

To perform *evaluation* of an electronic source the researcher will summarize the characteristics discovered in the previous step to primarily assess genuiness of the source. In doing that, a researcher will need to consider media format of the source, its structure (textual, as well as hypertextual, in the case of hypertext documents), content and evidential value.

The final step of qualification of an electronic source – *criticism* – will be primarily concerned with establishing credibility of the source. It will follow the basic steps suggested by Garraghan (1973). In this procedure, the researcher will try to establish the date of production and publication of the source and – in the case of web publication – the date of the latest update. This will require some familiarity with HTML, as the researcher will probably have to look at the code of the document. Next, the researcher will attempt localization and attribution of the source. The main things to look for in this step are evidence of group ownership, author's credentials, and – in the case of documents, possibly falling under the "corporate-unofficial" category – evidence of authority approval. Contextualization is very much related to attribution. Performing contextualization of the source, the researcher will mainly try to establish corroboration of information. For example, a factual account of an event found on an activist group site should be first given proper attribution (the researcher will try to look for evidence of misleading, group authorship or evidence of sponsored content, check the author's credentials) and then contextualized (the researcher will try to analyze the integrity of document – both textual and representative). Establishing the source's credibility will be one of the final steps in the qualification of the source. It will primarily be concerned with establishing corroboration of information using other credible sources. The researcher might also have to perform clarification of the source while using it in his or her research.

A concise summary of the proposed steps is presented in Chart 3 below:

Pre-evaluation	• Directory listing (Yahoo) • Search resource editor's review (Magellan, • Newsletter review (SitingUp!, Edupage) • Listing relevance in a search engine search (AltaVista, Infoseek, HotBot, etc.) • Listing weighted relevance in a desktop search agent search (Copernic, etc.) • Referencing from othe Internet source which established authenticity and reliability (e-mail, sponcored article on a website or newsgroup, hyperlink database, etc.)
Classification	By Origin: • Time of production • Place of Production • Place of representation (if different from Place of Production) • Author's Manner of Obtaining • Author's Credentials • Collaborative authorship (group knowledge creation) Classification by Content: • Political • Social • Religious • Economic • Personal • Sponsored content Classification by Aim: • Formal ▪ Official sources ▪ Unofficial sources ▪ Corporate - unofficial • Informal Classification by Media: • Audio • Graphic • Video • Text document • Hypertext document • Platform – independent document (PDF, LaTEX, etc.) • Interactive animation Classification by Producer: • Human • Computer
Evaluation	Media format Structure Content Evidential value
Criticism	Dating • Date of production • Date of publication • Last update Localization

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	• Place of production • Place of representation Attribution • Authorship • Analysis of pre-existing material • Hyperlinking • Evidence of group ownership • Author(s) credentials • Evidence of sponsored content • Evidence of authority approval Credibility (evidential value) • Collation • Cross-checking • Corroboration of information Contextualization • Analysis of document representation and document mapping • Analysis of integrity • Explication • Clarification

Chart 3: Proposed Guidelines for Qualification of Electronic Sources

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An Effect Model of Political News and Political Advertising: The 1996 Presidential Election

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ABSTRACT

An Effect Model of Political News and Political Advertising: The 1996 Presidential Election

To determine the positive influence of exposure to an election campaign and the negative impact of the advertising campaigns of a presidential contest, we used structural equations to simultaneously assess 11 causal links between issue involvement, political news exposure, political advertising exposure, political news attention, political advertising attention, knowledge of candidates' issue stands and voting intention. Two data sets, one from a survey of 320 adult residents of Jackson County in Illinois during the primaries and another from a survey of 368 adult resident of Pulaski County in Arkansas prior to the election, were used in the study. They provided support for the hypotheses that exposure and attention to political news helped the electorate to learn the candidates' issue stands while exposure and attention to political advertising adversely influenced accuracy of such knowledge. Political knowledge influenced voting intention.

An Effect Model of Political News and Political Advertising: The 1996 Presidential Election

INTRODUCTION

Patterson and McClure (1976) started a debate on the different effects of political advertising and television news on voters' political knowledge to which communication scholars reacted as a significant trend in the area of political communication (Zhao & Bleske, 1995). However, a great deal of research has since compared the effects of television political advertising campaigns with television news and found results that could not support Patterson and McClure's conclusion.

In recent years, scholars in the Midwest, Southeast and the West Coast have detected an emerging pattern in their results when similar measures of news exposure and political advertising exposure were used. While they generally agree that the use of attention is a robust predictor of knowledge gain from television and simple exposure is an adequate measure of newspaper use, their findings, including the influence of political advertising, were not consistent across these regions (Chaffee, Zhao, & Leshner, 1994; Drew & Weaver, 1990, 1991, Weaver & Drew, 1993, Zhao & Chaffee, 1986; Zhao & Chaffee, 1995). When the comparisons were between the contributions of television news and television political advertising to voters' political knowledge, television news measures consistently accounted for significant knowledge gain but television political advertising measures did not exhibit a comparable pattern (Zhao & Chaffee, 1995; Weaver & Drew, 1995). Although news magazines and radio news were neglected in recent years (Chaffee, Zhao, & Leshner, 1994), there is ample empirical evidence that they make significant contributions to the public's political knowledge during presidential campaigns (Braima & Sothirajah, 1993; Braima, Sothirajah, & Johnson, 1996).

Different measures of exposure are not only crucial to media effects studies, but they also generate different media effects. Since Patterson and McClure's study, innovative approaches have been tried. McLeod and McDonald (1985) introduced attention as a measure of media use in their models that differentiated it from simple exposure. Similarly, when Chaffee and Schleuder (1986) combined attention and simple exposure in their analyses, attention contributed significantly to respondents' issue knowledge. The measures of simple exposure, however, have not been consistently challenged. Potter (1993), for instance, suggests that such a measure lacks specificity and claims, among other weaknesses, that the use of respondents' estimates of the number of days they watch television or read news magazines assumes that the media send uniform messages and that viewers are nonselective which might have held true during the days of network dominance.

The objectives of the study are 1) provide another comparison for the effects of two media formats, political news and political advertisements, in light of the debate among Patterson and McClure (1976), Weaver and Drew (1995), and Zhao and Chaffee (1995); 2) provide another test of measurement effects, following McLeod and McDonald (1985), Chaffee and Schleuder (1986), and Zhao and Bleske (1995); 3) develop a theoretical and measurement linkage between knowledge and voting intention; 4) provide a hypothesized model that serves as a more formal modeling attempt; and 5) provide a test of the model to two different point during a election campaign season. The first test will be conducted during the primaries of the 1996 presidential campaign and the second test will be conducted during the Fall campaign between President Clinton and Senator Dole.

Particularly, this study will use issue involvement, exposure to political news and political advertising, and attention to political news and political advertising in a path analytic model to determine their relative effects on knowledge of candidates' issue stands and voting intention. Political news include exposure to the coverage of the presidential campaigns in newspapers, magazines, television, and radio, while political advertising include exposure to the political advertising campaigns of the candidates in newspapers, magazines, television, and radio. Attention to the two media formats is also included as intervening media use variables.

LITERATURE REVIEW

Involvement

Roser (1990) claims that researchers have increasingly included involvement measures in effects studies because level of involvement determines whether the audience selects and actively processes information or passively allows messages to wash over them. However, Roser notes that researchers strongly disagree about what involvement is, when it happens, and whether it strengthens or diminishes attitudinal changes. Involvement has been defined as the individual's connection to an issue prior to exposure (Grunig, 1982; Petty & Cacioppo, 1986), a state of activation during exposure (Cohen, 1983) or the processing that results from exposure (Batra & Ray, 1985). Finally, involvement entails cognitive, affective and behavioral components (Roser, 1990; Lo, 1994), and different forms of involvement have different effects (Chaffee & Roser, 1986; Shoemaker, Schooler, & Danielson, 1989).

Past studies have suggested that political involvement may be the most important predictor of political behavior other than past political participation (Atkin, 1972; Culbertson, & Stempel, 1986; McLeod & Becker, 1981). Studies suggest that individuals who are highly involved with a topic process information more deeply (Batra & Ray, 1985; Greenwald & Leavitt, 1984; Roser, 1990; Chaffee & Roser, 1986) and tend to use the media more purposefully (Chaffee & McLeod, 1983; Chaffee & Schleuder, 1986; Grunig, 1979; McCombs, 1972) than those who have low involvement. For instance, Tewksbury (1999) found that those processing news messages with a judgment formation goal will be more likely to recall a candidate's issue positions than those processing with a pass-time goal.

Motivated citizens rely especially on newspapers to learn about politics (Culbertson & Stempel, 1986; McLeod & Becker, 1981; Tan, 1980) because they provide more information than television (Chew, 1994; Pinkleton et al., 1997). For instance, Petty and Cacioppo's elaboration likelihood model predicts that greater issue involvement increases the probability that individuals will consider, weight, and judge persuasive arguments carefully (Petty & Cacioppo, 1979, 1986). Similarly, Pinkleton and Austin (1998) found that involvement positively predicted newspaper use and information gathering via conversations and radio talk shows as well as intent to vote.

Scholars disagree about the influence of involvement on using political advertising for campaign information. Some studies suggest that the less involved voters learn more from political advertising than more involved ones (Patterson & McClure, 1974; Hofstetter, Zukin, & Buss, 1978). Similarly, Braima, Johnson and Sothirajah (1999) found that campaign interest predicted political news but not political advertising exposure. However, others have found that advertising recall is connected to both information seeking (Atkin et al., 1973; Atkin, 1972) and political interest (Faber & Story, 1984). Furthermore, Faber, Tims and Schmitt found that involvement in the campaign was associated with a greater influence of political advertising on candidate voter preference. They note that those who are more involved with politics may attend to more campaign information, including advertising. Finally, Garramone (1984) discovered that those who are more involved with politics are more likely to be negatively influenced regarding the campaign advertisements' target than the less involved voter, at least among highly educated voters and those supporting neither candidate. Garramone speculates that those who haven't decided on a candidate may be actively seeking out information to make a decision and are therefore more receptive to political advertisements.

Therefore, while studies suggest that those with high involvement will seek out information in the traditional media, particularly newspapers, scholars are divided on whether those who are high or low involvement will rely on information from campaign advertisements.

Exposure vs. Attention

Communication researchers have long debated how media exposure should be measured (Troldahl, 1965; McDonald, 1990; Potter, 1993). The debate over how media use should be measured is not just one of semantics; studies have found that the relationship between media use and political attitudes, behaviors, and cognitions depends on how media use is measured (McLeod & McDonald, 1985; Chaffee & Schleuder, 1986; Martinelli & Chaffee, 1995; Zhao & Bleske, 1995; Johnnson, Braima, & Sothirajah, in press).

Most studies have relied on general exposure as their main media variable, even though studies suggest it is a weaker predictor of political attitudes, behaviors, and cognitions (Chaffee & Schleuder, 1986; Pfau et al., 1997). Researchers who have employed exposure to particular content, such as news, have found such measures better predict political attitudes, behaviors, and cognitions than does simple exposure (McLeod & McDonald, 1985; Potter & Chang, 1990). Similarly, Chaffee and Schleuder (1986) note that attention to television is a stronger predictor of information gain than general television use, because watching television is a low-involvement behavior; one can "watch" television without paying attention to content. Attention to television suggests actively processing content. Similarly, Potter (1993) suggests attention is a better measure, because general exposure to television does not necessarily entail viewing political information.

Several recent studies have employed both use and attention measures and found that attention predicts knowledge gain better than exposure (e.g., Braima & Sothirajah, 1993; Drew & Weaver, 1990; Martinelli & Chaffee, 1995; Stamm, Johnson, & Martin, 1997; Johnson, Braima, & Sothirajah, 1999, in press; Zhao & Bleske, 1995). Attention to public affairs content is more strongly linked to campaign interest (Drew & Weaver, 1998; Waluszko, 1995; Weaver & Drew, 1995) and to intent to vote (Kennamer, 1987; Norris, 1996; Wu, 1995) than are general use measures.

While studies suggest that attention is a stronger measure than general media use, researchers maintain that both use and attention measures should be included in media studies, because the two measures in combination more accurately reflects people's actual media use of television news and the two measures combined can improve how well media use predicts political attitudes, cognitions and behaviors (Chaffee & Schleuder, 1986; McLeod & McDonald, 1985). For instance, when McLeod and McDonald combined measures of simple exposure with measures of attention as independent variables, they significantly improved prediction of political knowledge in their model. Consequently, they warned against "estimating model effects solely on the basis of simple exposure" (McLeod & McDonald, 1985, p. 26).

Political news vs. political ads and knowledge

While some scholars have suggested that media reliance in general during the election campaigns contributes to low political knowledge (Cappella & Jaimieson, 1997; Crotty & Jacobson, 1980), most studies have suggested that media impact on political knowledge depends on what medium is being examined.

Newspapers have consistently emerged as a major predictor of knowledge about issues and parties. For instance, one study of the 1992 presidential election found that newspaper reading and attention were the two best predictors of party-issue differences (Chaffee et al., 1994). Reliance on newspapers has also been linked to information recall (Becker & Dunwoody, 1982; Berkowitz & Pritchard, 1989; Culbertson & Stempel, 1986; Pettey, 1988). Newspapers may be the strongest predictors of political knowledge because they contain more information that other media (Chew, 1994; Pinkleton et al., 1997). Also, studies suggest that newspaper use is consistently linked in uses and gratifications to informational needs such as surveillance and voter guidance (Culbertson & Stempel, (1986). Television may be the preferred source when people want to evaluate personal qualities of the candidate such as intelligence or character (Chaffee & Kanihan, 1997).

Several studies during the 1970s suggested that, because television as a whole emphasized entertainment over information, general television viewing is a poor predictor of information gain (Robinson & Levy, 1986; Patterson, 1980; Becker & Whitney, 1980; O'Keefe & Mendelsohn, 1978; Patterson & McClure, 1976; Quarles, 1979). However, several recent studies that have employed both use and attention measures have rehabilitated television's image. They found that attention predicts knowledge gain better than exposure (e.g., Stamm, Johnson, & Martin, 1997; Leshner & McKean, 1997; Weaver & Drew, 1995; Zhao & Chaffee, 1995; Martinelli & Chaffee, 1995; Zhao & Bleske, 1995; Chaffee, Zhao & Leshner, 1994; Braima & Sothirajah, 1993; Drew & Weaver, 1990; Martinelli & Chaffee 1995), although relationships sometimes become insignificant after controlling for other variables (Johnson, Braima, & Sothirajah, in press, 1999; Drew & Weaver, 1998; Weaver, Drew & Wu, 1998).

Early studies praised the ability of political advertisements to convey information about candidates and their issues (Atkin & Heald, 1976; Hofstetter & Buss, 1980; Hoffstetter, Zukin, & Buss, 1978; Patterson & McClure, 1974) and to help voters differentiate between candidates (Faber, 1992). Indeed, some studies found that political advertisements did a better job of presenting issue information than media coverage (Patterson & McClure, 1976).

However, as candidates have increasingly relied on negative advertisements to try to tear down their opponents, scholars question their ability to convey political information (Braima, Sothirajah & Johnson, 1996; Zhao & Chaffee, 1995; Zhao & Bleske, 1995; Weaver & Drew, 1995; Wanta, Lemert & Lee, 1998). Negative advertisements may also lead individuals to pay less attention to campaign messages (Pinkleton & Garramone, 1992; Pinkleton, Austin & Fortman, 1998) which is important for the development of political knowledge, involvement and participation (Culbertson & Stempel, 1986; McLeod & Becker, 1981, Petty, 1988; Tan, 1980). Similarly, candidates' reliance on spot advertising, particularly negative advertisements, has increased feelings of alienation and apathy among voters and ultimately reduced their intention to vote (Garramone, 1984, 1985; Ansolabehere et al, 1994; Lemert, Wanta & Lee, 1999). Negative political advertisements also reduce people's confidence in the political process and cause people to place less value on their own participation (Ansolahehere & Iyengar, 1995). However, Chaffee and Kanihan (1997) suggest that researchers may underestimate the influence of campaign ads on political knowledge because they rely on attention as their measure and people might not be willing to admit that they rely on political ads for information. Indeed, when Brians and Wattenberg (1996) used ad recall as their political use measure, they discovered that it proved a stronger predictor of knowledge of Clinton and Bush's issue positions than either newspaper or TV news use and that only political advertising was linked to using issues in evaluating candidates.

Thus, while research suggests that newspaper use and attention to television news strongly predict political knowledge, researchers are split on the influence of political advertising on political knowledge.

Political Knowledge and Voting

Few studies have directly studied the relationship between political knowledge and voting, focusing instead on such factors as demographics, partisanship, political efficacy and media use (Conway, 1985; Teixeira, 1992; Flanigan & Zingale, 1998; Abramson & Aldrich, 1982) as well as structural factors such as registration laws (Calvert, 1998; Piven & Cloward, 1988). Much of the research examining political knowledge and voting laments at how ill informed the American public is in making voting choices (Bartels, 1996; Neuman, 1986; Converse, 1964) and how voting turnout has declined despite increases in educational levels which is historically connected to voter turnout (Brody, 1978). For instance, as Berelson, Lazarsfeld and McPhee note in their *Voter* study, "The democratic citizen is expected to be well informed about political affairs. He is supposed to know what the issues are, what their history is, what the relevant facts are, what alternatives are proposed, what the party stands for, what the likely consequences are. By such standards the voter falls short."

The few studies that have tested the impact of political knowledge on voting generally indicate that it is a strong predictor, but its power to influence voting declines considerably after controlling for other variables.

Delli Carpini and Keeter (1996) discovered that in the 1988 presidential election, nearly nine of ten of the most knowledgeable respondents voted while only two of the ten least knowledgeable ones did so, a finding that parallels Neuman (1986). Teixeira (1992), on the other, found that knowledge of issues and candidates' stands on issues was a weak, though significant predictor of the decline in voter turnout. Indeed, of all the variables entered into his regression equation, political knowledge proved the weakest predictor, explaining less than 3 percent of the variance after controlling for socioeconomic status.

Scholars argue that political knowledge increases the likelihood to vote because it promotes an understanding of why politics is relevant. Indeed, Delli Carpini and Keeter (1996) found that political knowledge was the strongest predictor of whether people said they cared about the outcome of the election. Political knowledge may also spur participation by providing mobilizing information—facts about opportunities to participate and how to participate once they are aware of these opportunities (Lemert, 1981; Delli Carpini & Keeter, 1996). Knowledge may also be linked to a number of political attitudes such as political interest and efficacy that motivate people to vote.

While few studies have directly examined the influence of political knowledge on intention to vote, several studies have explored the issue more indirectly through the influence of education and campaign information on turnout.

Education has consistently emerged as a strong predictor of likelihood to vote (Flanigan & Zingale, 1998; Teixeira, 1987, 1992; Conway, 1985; Wolfinger & Rosenstone, 1980; Campbell et al, 1960; Milbrath, 1965). Those who are educated are more likely to be well informed about politics and to follow the campaign through the media. Learning about politics heightens interest in the campaign, which leads to voting. The American school system stresses the obligation to vote and thus nurtures a sense of civic duty that leads to voting (Sniderman, 1975; Wolfinger & Rosenstone, 1980). Similarly, those with educated parents are more likely to be instilled with a sense of civic duty (Almond & Verba, 1963, Conway, 1985). Those who are educated also know more about how the political system works and are therefore more aware of the consequences of government actions on their lives (Conway, 1985). Education also increased one's ability to handle voting requirements such as registering and knowing where to go to vote, thus reducing the cost of voting (Conway, 1985; Wolfinger & Rosenstone, 1980).

Research also suggests that political knowledge can be indirectly related to intention to vote through the relationship between newspaper use and voting. Newspaper use is a strong predictor of likelihood to vote (Drew & Weaver, 1998; McLeod, 1996, Kwak, 1996, Wu, 1995). Several studies suggest that attention to television news also predicts likelihood to vote (Norris, 1996, Weaver & Drew, 1995; Wu 1995), although the relationship is typically not as strong as for newspapers. Newspaper use requires people to actively search for information. Therefore, those who read newspapers not only know more than those who don't, they are more able to make sense of the election process and they become more involved in the election, and are therefore more likely to vote (Teixeira, 1987). Indeed, scholars suggest that a significant portion of the drop in voter turnout can be attributed to a decline in newspaper reading in recent decades (Teixeira, 1987, Shaffer, 1981). Also, newspaper reading has been linked to characteristics such as political efficacy (Pinkleton & Austin, 1998; Walker, 1988, Miller, Goldenberg, & Erbring, 1970), campaign activity (Huang, 1996; Kebbel, 1985a, 1985b), and campaign interest (Johnson, Braima & Sothirajah, 1999, Kwak 1996, Weaver & Drew, 1995) that have also been linked to voting. Thus, the relationships between newspaper use and likelihood to vote sometimes become insignificant after controlling for other factors (Weaver & Drew, 1995; Weaver, Drew & Wu, 1998).

The Model

The spatial theory of decision making developed by economists has been borrowed by political scientists to explain the behavior of political parties and voters. At a time when party loyalty was dominant, Downs (1961) argued that voters perceived the parties as points on an ideological axis thus making it possible for voters to forecast the policies that a party would pursue if it was selected. Davis and Hinich (1966) expanded the spatial theory of voting by developing a multidimensional model that used campaign issues as its axes and politicians as points in a multi-issue space.

The spatial theory of marketing used the concept of equilibrium in marketing research and was borrowed by candidates to develop centrist platforms that appeal to the unimodel American public opinion phenomenon. A centrist platform ensures a candidate approximately half the votes in a particular election (Ognianova & Endersby, 1996). But candidates actually strive to position themselves in the axes of issues such that it brings them closer to the voters' personal preferences, which secures political victory.

Several information processing and heuristic models have been successfully based on the spatial theory of voting (e.g., Herstein, 1981). This study also borrows from the spatial theory of voting by developing a model that includes political knowledge and voting intention as dependent variables. Figure 1 presents the recursive path model that is tested in this study. The model proposes that involvement will lead to exposure to different media formats, which in turn will lead to attention to media content, which will influence knowledge. Knowledge will in turn lead to voting intention.

According to the model, involvement leads to exposure to media reports and political advertising. On the one hand, exposure to media reports of the campaign issues will influence attention to those issues and knowledge of candidates' stands on them as much as impacts exposure to political advertising. The latter influence is partly due to the media's analysis of the candidates' political ads (Meyer, 1993) and because of the prevalence of the ads themselves, particularly toward the end of a political campaign season. Exposure to political ads, on the other hand, positively influences attention to ads content, but negatively influences knowledge of candidates' stands on the issues of the campaign in general. The latter prediction is based on the premise that candidates usually favorably and selectively exaggerate their positions on certain issues they deem important to the voters. Conversely, they portray their opponents in a negative light on these issues. Equally prevalent is the use of misleading, superficial and negative political advertising campaigns that encourage the other candidate to run counterclaims (Meyer, 1993) thereby confusing voters about the facts. Therefore, these factors could actually reduce the individual's likelihood to learn the true positions of the candidates on these issues.

Similarly, attention to the media's coverage of campaign issues will influence both attention to political ads content and knowledge of candidates' stands on the issues. Attention to ads' content, however, negatively influences knowledge of candidates' issue stands. The preceding arguments concerning the negative influence of political ads exposure equally apply to attention to ads content.

The significance of the public's political knowledge as a requisite to sensible political participation has been well acknowledged. Plato, Locke and Mill are a few of the great philosophers who wrote about the role political knowledge plays in sound governing and the degree to which people with varying degrees of public affairs knowledge should participate in government (e.g., Carpini & Keeter, 1996). In large democracies such as the United States, the degree to which voters can be informed about public affairs depends, in part, on the prevalence of the mass media. However, the depth of political knowledge needed for sensible political participation has been a matter of debate among political scientists. While one camp is interested in an ideal level of knowledge of factual information, the other camp allows the voters to define for themselves what is political knowledge and how voters make sense of their political environment (Carpini & Keeter, 1996, Graber, 1994). If voting for a particular candidate requires knowledge of candidate's issue stands as the spatial theory of voting suggests, then political knowledge per se must be the foundation upon which any political activity including voting must be built. Therefore, a positive relationship between political knowledge and voting intention is expected.

Ten paths in the model are neither theoretically substantive nor empirically tenable. Involvement influences the exposure variables directly and attention variables only through exposure. Logically, individuals who perceive future consequences of the outcome of the election on themselves or their families are more likely to follow the campaign over the media. Attention, then, must occur after initial exposure as well as during exposure. Furthermore, unless we include other sources of information in the model, involvement can influence knowledge of issue stands only through media use variables. Although highly involved individuals are more likely to vote than others, voting intention is not considered theoretically plausible in this model without the mediating influence of the media use variables and/or at least some knowledge of the candidates' issue stands.

Exposure variables may influence voting intention only through attention variables and knowledge of issue stands. Again, only involved individuals who expose themselves to the campaign coverage/advertising campaign are likely to pay attention to the media's reportage of campaign activities, consequently, they are more likely to gain knowledge of the candidates' issue stands. Therefore, exposure variables should not directly lead to voting intention. Similarly, attention variables influence voting intention only through knowledge of issue stands, that is, individuals who do not care enough to have a knowledge base of the campaign issues are least likely to vote.

Figure 1 About Here

METHODOLOGY

The Samples

This study will examine the influence of exposure to political news and political advertising on knowledge of candidates' issue stances and voters' intent to vote through two surveys. The first survey was conducted in Jackson County, Illinois in July 1996. Trained undergraduate and graduate students interviewed 320 residents of the county by telephone. The completion rate was 45.1% after eliminating nonworking numbers, businesses, and respondents who failed to answer the phone. The second survey was conducted in Pulaski County, Arkansas in the two weeks prior to the presidential election. Trained undergraduate students were able to interview 368 residents of the county by telephone. The completion rate for the second survey was 56.3%. Both samples were drawn from local exchanges using random digit-dialing procedures.

Measurement of Latent Constructs

Involvement. The measured indicators for issue involvement were borrowed from Gruning and Childers (1988). Respondents were asked: (a) to what extent do you believe the overall issues of the election will affect you personally either now or in the near future? and (b) someone close to you either now or in the near future?

Political News and political advertising exposure. The items were borrowed from Atwood (1991). The political news exposure items were (a) how much have you read or heard about the presidential election campaign within the last month or so in newspapers? (b) from television? (c) from radio? and (d) from magazines? The political advertising items were (a) how much have you read or heard about the presidential election campaign within the last month or so in newspapers political advertising? (b) from television political commercials? (c) from radio political commercials? and (d) from magazines political advertising?

Political news and political advertising attention. The measured indicators for the construct of attention were borrowed from McLeod and McDonald (1985). The items were suppose you come across a story or something about the election tomorrow, how much attention would you pay to the story about the election? (a) newspaper stories? (b) magazine stories? (c) television news stories? and (d) radio stories? For the political advertising attention constructs, the item were (a) newspaper political advertising? (b) television political commercials? (c) radio political commercials? and (d) magazine political advertising?

Knowledge of issue stands. The measured indicators for knowledge of issue stands were developed for this study. The first survey included knowledge of President Clinton and Bob Dole's stances on six issues including constitutional amendment banning abortion, affirmative action programs for minorities, a ban on assault weapons, providing welfare benefits for illegal immigrants, term limits for Congress and the North American Free Trade Agreement. The second survey also included knowledge of President Clinton and Bob Dole's stances on six issues. However, Bob Dole reversed his stand on a ban on assault weapons, consequently the study changed that question to support of a 15 percent tax cut

Voting intention. In the first survey respondents were asked indicate their likelihood to vote on a scale of zero to ten. In the second survey, respondents were asked three questions regarding their likelihood to vote. (a) On a scale of 0 to 10 where 0 indicates absolutely not and 10 indicates absolutely certain, what are the chances you are going to vote this year? (b) What are the chances you are going to vote if the weather is really bad? (c) What are the chances you are going to vote if you are really busy?

The constructs of media reports and political advertising exposure scales were measured on Likert type scales of A Great Deal (5), Quite A Bit (4), Some (3), A Little (2) and Nothing At All (1). Similarly involvement, attention to political news and attention to political advertising were measured on Likert type scales of A Great Deal (5), Quite A Bit (4), Some (3), A Little (2) and Not At All (1).

Analyses

The measured indicators of each construct were summed up to create indices. Then a separate correlation matrix was calculated for each data set (See Table 1). LISREL 7 was used to fit the proposed model to each data set. The model in Figure 1 was estimated by analyzing the covariance matrix of the measured variables and producing maximum-likelihood estimates of the parameters in structural equation models (Joreskog & Sorbom 1989). Causal paths between issue involvement and political news exposure and political advertising exposure are assessed by γ_{11} and γ_{21}, while β's assess the causal paths among the endogenous constructs.

Table 1 and Table 2 About Here

FINDINGS

Overall Fit of the Model for Jackson County

Assessing the adequacy of the tested model is accomplished by examining the results of measures of overall fit. The model fit the data well with a $\chi^2 = 14.32$, $df = 8$, $p = .074$ (See Table 3). The chi-square test assesses the fit between observed covariance (S) and implied covariance (Σ) and hence provides an omnibus test of the model and the estimates of its free coefficients (Hayduck, 1987). Also the ratio of chi-square to degrees of freedom has been used to determine the adequacy of a fit. Some researchers suggest that a ratio of chi-square to degrees of freedom of 5 or less is an indication of an acceptable fit (Chaffee & Roser 1986, Hayduck 1987). For the tested model the ratio was 1.92.

A second measure of overall fit is the Goodness-Of-Fit-Index (GFI = .988) which indicates the relative amount of variance and covariance explained by the model. The Adjusted Goodness-Of-Fit Index (AGFI = .957) is the former index adjusted for the degrees of freedom of the model. Generally, the closer the GFI and AGFI to 1.0, the better the fit of the model. The results indicate a very good fit for data.

The third measure of overall fit is the Root Mean Square Residual (RMR) which is the average of the fitted residuals. The elements of the fitted residuals are the difference between sample covariance and implied covariance ($S - \Sigma$) (Joreskog & Sorbom, 1989). The general rule of thumb is that a Root Mean Square Residual of less than .05 represents a very good fit. For the model, Root Mean Square Residual was .042. All these are indicators of a very good fit (Joreskog & Sorbom, 1989).

Table 3 About Here

Model Estimates for Jackson County

An examination of the solution is largely determined by assessing the estimated path coefficients of the model. We developed 11 hypotheses for the study and expected them to be significantly different from zero at the 0.05 level. Only one hypothesis, that exposure to political advertising will reduce political knowledge (-.04) was not statistically different from zero.

Table 4 presents the completely standardized maximum likelihood estimates for the model and shows the extent to which structural paths confirm all the other remaining hypotheses. Higher levels of issue involvement caused increased exposure to political news (.31) and political advertising (.11) as hypothesized. It also led to greater attention to political news (.24). Even though that particular link was not indicated in the model, it was not an unexpected outcome. Greater political news exposure caused greater exposure to political advertising (.41), higher level of attention to political news (.46), reduced level of attention to political advertising (-.17) and an increased level of political knowledge (.28). More political advertising exposure caused greater attention to political advertising (.50) and a reduced level of political knowledge (-.21). Higher level of attention to political news led to increased attention to political advertising (.27) and a greater level of political knowledge (.18), while higher level of attention to political advertising caused lower level of political knowledge (-.04) but not statistically significant. Finally, increased political knowledge led to increased voting intention (.33).

Table 4 About Here

Overall Fit of the Model for Pulaski County

Similarly, the model fit the Pulaski County data very well with some minor adjustments (See Table 5). Despite the fact that the chi-square is significant at .014 (χ^2 = 17.65; *df* = 7), the model represents a good fit to the data. As Chaffee and Roser (1986) point out, with large sample sizes, obtaining nonsignificant chi-squares are almost impossible. Large sample sizes tend to produce significant χ^2, like other tests of significance, not because the fit between S and Σ is bad, but because even smaller differences are considered more than mere sampling fluctuations (Hayduck 1987). When we ran the data with a sample size of 200 respondents, the results were more telling (χ^2 = 13.23, *df* = 7, *p* = .067). Also the ratio of chi-square to degrees of freedom was less than 5 namely 2.52 (Chaffee & Roser 1986, Hayduck 1987). The Goodness-Of-Fit Index (GFI = .987), the Adjusted Goodness-Of-Fit Index (AGFI = .947) and the Root Mean Square Residual (RMR = .043) are indicators of a very good fit (Joreskog & Sorbom 1989).

Table 5 About Here

Model Estimates for Pulaski County

The model developed 11 hypotheses for the study and expected them to be significantly different from zero at the 0.05 level. Two hypotheses, that attention to political news will increase political knowledge (-.10) and attention to political advertising will reduce political knowledge (-.10), were not statistically different from zero.

Table 6 presents the completely standardized maximum likelihood estimates for the model and shows the extent to which structural paths confirm all the other remaining hypotheses. Higher levels of issue involvement caused increased exposure to political news

(.23) and political advertising (.20) as hypothesized. It also led to greater attention to political news (.22) and voting intention (.18). Even though those particular links were not hypothesized in the model, they were very probable outcomes. In fact, the former link is consistent with the results of the Jackson County data and the latter result was also consistent with previous findings (Braima, Sothirajah & Johnson, 1996). Greater political news exposure caused greater exposure to political advertising (.61), higher level of attention to political news (.42), reduced level of attention to political advertising (-.23) and an increased level of political knowledge (.21). More political advertising exposure caused greater attention to political advertising (.47) and a reduced level of political knowledge (-.11). Higher level of attention to political news led to increased attention to political advertising (.68). Both increased level of attention to political news and political advertising caused lower level of political knowledge by an equal value of -.10 but not statistically significant as mentioned earlier. Finally, increased political knowledge led to increased voting intention (.24).

Table 6 About Here

DISCUSSION

The main objective of this study was to determine the influence of different media formats on political knowledge and voting intention. The results indicate that media formats do matter and that measures of exposure to political news and attention are more effective than measures of political advertising exposure and attention. The findings could imply, as Zhao and Bleske (1995) suggested, that not only measures of variables matter but also that methodological differences could very well explain some of the contradictions in political communication literature. Contrary to previous investigations, in this study the combined measures of political news consistently outperformed political advertising three out of four times, which could be another indication of the robustness of message exposure measures. Not only did exposure to political news have larger positive effects on knowledge and voting intention, but also the influence of political advertising was negative on both knowledge measures.

The findings that the betas between exposure and attention to news with political knowledge were positive are not isolated. Several previous studies support these results including findings by Zhao and Chaffee (1995) and Weaver and Drew (1995). In fact, Chaffee, Drew, Weaver and Zhao concluded that news formats make consistently positive and stable contributions to voters' political knowledge during election campaigns. The impact of political ads, on the other hand, fluctuates from one election to another and from one locale to another. The range of the fluctuation was from nearly zero to highly positive. The contribution of this study is extending this range into the negative territory.

Zhao and Chaffee (1995) argued that the negative correlations between exposure and attention to political ads with issue knowledge are what theory and common sense would predict. The negative beta seems to suggest that political ads may mislead voters by their confrontational and counter-attack nature. Earlier the model argued that candidates favorably and selectively exaggerate their positions on certain issues as well as portray their opponents in a negative light instead of focusing on the issues. Even worse, the use of misleading, superficial and negative political advertisements seem to be the norm in close races. Therefore, the amount of factual information in political ads cannot be comparable to that in all news formats.

The relationship between political knowledge and voting intention in this study as well as political participation in general have often been overlooked in previous studies. Political philosophers and the spatial theory of voting consider political knowledge a major foundation for participation in government. This study has provided initial empirical evidence to this important link. The authors urge students of political communication and media effects to expand on this finding.

Political communication studies have recently focused on exposure and attention, as predictors of knowledge of candidates' issue stands. While attention was often declared a better predictor than simple exposure by some researchers, other scholars found exposure to television news to be equally effective (Chaffee & Schleuder, 1986; McLeod & McDonald, 1985; Zhao & Bleske, 1995).

On a theoretical note, however, researchers have used attention and exposure as alternate measures of media use behavior. For instance, Drew and Weaver (1991) joined other scholars (Chaffee & Schleuder, 1986; McLeod & McDonald, 1985; Zhao and Bleske, 1995) to affirm the importance of attention as a measure of media use. But according to our findings and Zhao and Bleske's, the measures are probably tapping two different concepts. In Zhao and Bleske's (1995) words, "attention involves mental efforts and cognitive processing" (p. 79); in addition, it occurs only after initial contact with the message and during exposure, thus making it analogous to a measure of information processing.

Finally, this study has the same limitations of other cross-sectional investigations. Therefore, the replication of these findings through panel studies and with national data will certainly enhance our confidence in these results.

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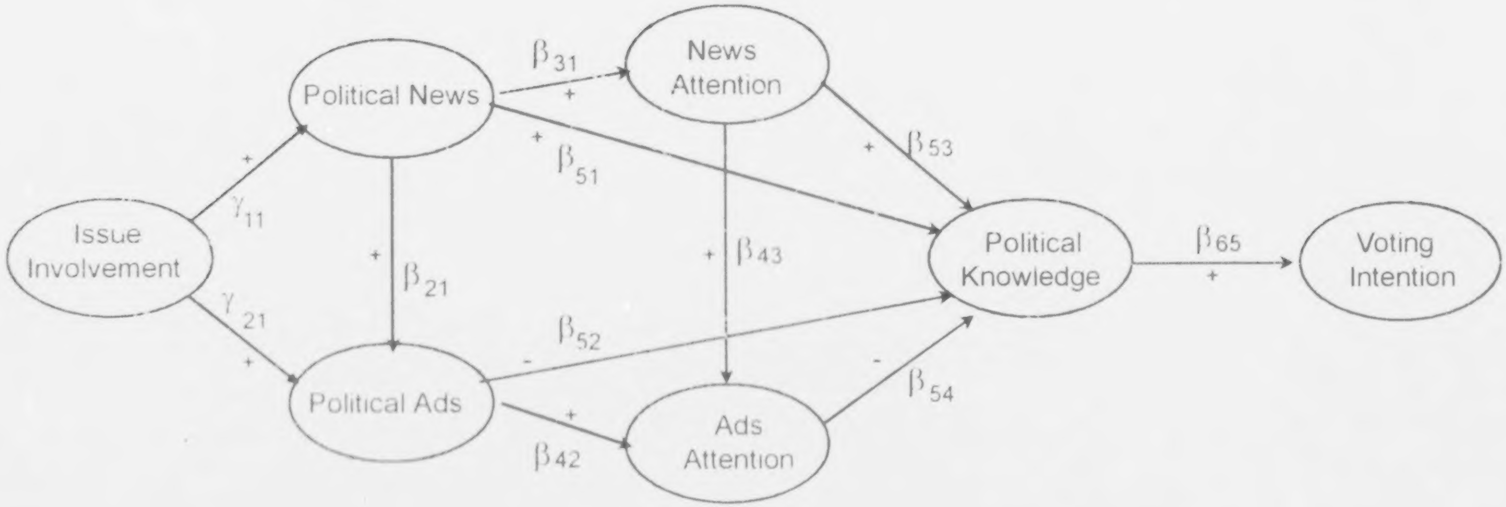
Issue Involvement
Political News
Political Ads
News Attention
Ads Attention
Political Knowledge
Voting Intention
γ_{11} +
γ_{21} +
β_{21} +
β_{31} +
β_{51} +
β_{52} -
β_{42} +
β_{43} +
β_{53} +
β_{54} -
β_{65} +

Figure 1 The Effects of Political News and Political Advertising on Political knowledge and Voting Intention

Table 1
Correlation Matrix of the Constructs for Jackson County

Political News	Political Ads	News Attention	Ads Attention	Political Knowledge	Voting Intention	Issue Involvement
1 0000						
4421	1 0000					
5320	2972	1 0000				
1964	5044	3301	1 0000			
2712	- 0533	2523	- 0285	1 0000		
2365	0107	2264	- 0148	3280	1 0000	
3042	2336	3758	1880	0866	0992	1 0000

Table 2
Correlation Matrix of the Constructs for Pulaski County

Political News	Political Ads	News Attention	Ads Attention	Political Knowledge	Voting Intention	Issue Involvement
1.0000						
.6578	1.0000					
.4708	.4076	1.0000				
.3905	.5834	.7456	1.0000			
.0565	-.0644	-.1166	-.1512	1.0000		
.1581	.1037	.1431	.1388	.2257	1.0000	
.2266	.3348	.3116	.3760	-.0569	.1654	1.0000

Table 3

Goodness of Fit Estimates for Jackson County

Parameter	Estimate
χ^2 (N=320)	14.32
Degrees of Freedom	8
χ^2 / df	1.92
Probability	.074
Goodness of Fit Index	.988
Adjusted Goodness of Fit Index	.957
Root Mean Square Residual	.042

Table 6
Test of the Model of Media Effects During a Presidential Campaign for Pulaski County

Parameter	Estimate	Standard Error	T-Value
β_{21} Political News – Political Ads	.61	.039	15.69
β_{31} Political News – Political News Attention	.42	.046	9.17
β_{41} Political News – Political Ads Attention	-.23	.042	-5.36
β_{51} Political News – Political Knowledge	.21	.075	2.82
β_{42} Political Ads – Political Ads Attention	.47	.040	11.65
β_{52} Political Ads – Political Knowledge	-.11	.080	-1.33
β_{43} Political News Attention – Political Ads Attention	.68	.034	19.64
β_{53} Political News Attention - Political Knowledge	-.10	.083	-1.21
β_{54} Political Ads Attention – Political Knowledge	-.10	.090	-1.08
β_{65} Political Knowledge – Voting Intention	.24	.050	4.70
γ_{11} Issue Involvement – Political News	.23	.051	4.45
γ_{21} Issue Involvement – Political Ads	.20	.039	5.01
γ_{31} Issue Involvement – Political News Attention	.22	.046	4.70
γ_{61} Issue Involvement – Voting Intention	.18	.050	3.57

Press-State Relations: A Critical Reappraisal

by

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Press-State Relations: A Critical Reappraisal

ABSTRACT

This essay offers a critical reappraisal of the current thought about press-state relations. Existing studies of press-state relations are examined in terms of the normative, institutional, and symbolic approaches. To base press-state relations on a concrete theoretical framework, I consider models of power. Gramsci's concept of hegemony and Foucault's notion of power/knowledge enables to see the press-state nexus as a discursive terrain, where diverse actors struggle for a dominant position.

Press-State Relations: A Critical Reappraisal

Despite the abundance of empirical studies, the question of press-state relations has received rare theoretical attention in both liberal and critical media studies. As a result, research on this subject remains abstract and anecdotal in nature. This paper is a critical reappraisal of the current thought about press-state relations, offering some metatheoretical discussion on press-state relations. For this purpose, I begin with the conceptual elements involved in theorizing press-state relations. This enables us to group the existing studies of press-state relations into three main approaches: the normative, institutional, and symbolic approaches. As a theoretical guidance for a more comprehensive analysis of press-state relations, I refer to models of power, i.e., Lukes's (1974) three modern views of power and Foucault's (1977, 1978, 1980) postmodern view of power/knowledge as a discursive basis of social control. Then, I consider a theoretical possibility of expanding the realm of press-state relations by relying on the Gramscian framework of hegemony and Foucauldian framework of power/knowledge.

Press-state relations have been more actively studied in liberal media studies, where the central concern has been built around the implications of the adversarial vs. symbiotic aspects of the media-government relationship for democratic political decision-making. While admitting the coexistence of conflict and cooperation in the routinized interaction between journalists and politicians, most liberal media scholars, by narrowly focusing on the role of the media vis-a-vis government, have ignored the ideological aspect of power dominance and subordination in the capitalist social process. In critical media studies, however, press-state relations have seldom been a major concern of study, mainly because many critical media scholars, informed by Althusser's (1971) concept of the ideological state apparatuses, have seen the state and media as ideological partners working in tandem to maintain the structure of capitalist domination. This partly explains why there have been little efforts in critical media studies to explain how forms of press-state relations are shaped and reshaped by short-term divisions within capitalist classes and disagreement among capitalists about what can best maintain such dominance. For a comprehensive study of press-state relations, we must consider the divisions within each the state and the press. This point is especially important for a theoretical understanding of the press-state nexus as an area of contested terrains and sites of struggle rather than a mere channel for information or publicity (Park, 2000).

I will use the term press-state relations over other possible candidates, such as press-government relations, press-president relations, press-congress relations, press-officials relations, and press-politicians relations. Even though the terms the state and government are analytically difficult to separate, these two terms have slight different theoretical implications (Sparks, 1986, p. 76): While the state means a large and permanent body of professional people who owe their position not to election but to bureaucratic norms, the government means a small and transitory body of people formed by election (e.g., the British state vs. the Thatcher government). The reason I prefer the term press-state relations to others is that it locates the issue in the general, socio-historical context of capitalist democracies. The term press-state relations also seems more relevant than the term media-state relations because it implies the importance of news in the policy-making process.

Let me start with the elements engaged in conceptualizing press-state relations. Based on an extensive review of liberal studies of government-media relations, Rivers, Miller and Gandy (1975) offered four main areas of research on this topic: (a) government impact on media, i.e., the techniques used by officials to exert influences on the news-gathering behaviors of the media through such means as legislation, licensing, regulation, judicial ruling, news briefing and information withholding; (b) government information systems, i.e., channels and techniques that officials employ to disseminate information to the news media or to compete with the news media for public attention; (c) media impact on government, i.e., the ways the news media influence official attitudes or behavior about the media and their news coverage; and (d) the nature of the news media, i.e., the structure and characteristics of news organizations, reporters, and news content. This scheme reflects the general concern of liberal studies of press-state relations: that is, the factors that can affect the information processing of the media and government. One problem with this scheme, seemingly the most widely used one thus far, is that many conceptual elements are mixed in each of the categories. It cannot tell, for example, that while the government media policy or legal system serves as a parameter for activities of officials and reporters, the media policy itself does not make a form of press-state interaction.

This suggests the need for singling out the conceptual dimensions involved in theorizing press-state relations. Descriptions of press-state relations have been instructed by two conceptual polarities, namely, the adversarial-symbiotic polarity and the dominant-subordinate polarity. These polarities represent two basic dimensions for the conceptual distinction of press-state relations. The adversarial-symbiotic polarity is concerned with the attitudinal stance of the state and news media toward each other, describing press-state relations as adversarial (critical), symbiotic (cooperative, mutually beneficial), or neutral (objective). Journalistic practices of the U.S. news media, however, have retained both adversarial and symbiotic elements: U.S. journalists largely distrust the state but follow the state agenda. This ambivalent stance of the U.S. news media toward political authorities can be explained by their reformist impulse (Hallin, 1994).

The dominant-subordinate polarity focuses on which part plays a dominant role, describing press-state relations in terms of three categories of interactive patterns between the two institutions: namely, the state-dominant, press-dominant, and contingent relationships. A press-dominant relationship suggests that the news media play a dominant role in setting the terms of political debates to which political elites must adapt; a state-dominant relationship implies that the press plays a subordinate role because it assumes that the news routines and standards allow political authorities to serve as primary definers of social events and issues; and a contingent relationship assumes that the press and the state exercise reciprocal influences.[1]

The liberal pluralist and critical traditions have shown divergent ways of applying these two polarities to press-state relations. While liberal pluralists are more concerned with the adversarial-symbiotic dimension of the relationship between the state and media, critical scholars pay more attention to the dominant-subordinate dimension of the relationship. Examination of the adversarial-symbiotic dimension is less attractive to critical scholars, because they assume, either explicitly or implicitly, that the state and media constitute an ideological symbiosis for capitalist domination. Reflecting efforts to overcome the class reductionist view of the media, however, the concept of relative autonomy becomes important in critical studies of press-state relations. The central concern of this concept is whether the media are relatively autonomous in relation to the state and social classes.

Studies of press-state relations have applied these two conceptual polarities to two referents of press-state relations: namely, the institutional or interactional aspect and the symbolic or signifying aspect. These two referents have served as two major indicators for analyzing press-state relations, making the institutional and symbolic aspects two main areas of study. Empirical studies thus have focused on (a) the patterns of institutional or interpersonal interactions between the state and the press and (b) the press coverage of state policy issues. I call the first group of research the institutional approach and the second the symbolic approach. Conceptions of press-state relations are informed by normative views about the roles of the media and the state in the social process. This makes the normative approach another important branch of press-state relations studies.

Before considering the characteristics of these approaches, we first need to clarify the terms conservative, liberal, and radical (or critical). Conservative originally meant defenders of state institutions against the emerging capitalist market economy in the early stage of capitalist development, while liberal denoted advocates of the laissez-faire economic principle against state regulations. The meanings of these terms are reversed these days: Whereas conservative now means those who argue for free-market and deregulation, liberal refers to those who defend state intervention in economy and state provision of social welfare programs (Dye & Zeigler, 1986; Kellner, 1990). Radical refers to "those who champion more extensive social transformation" (Kellner, 1990, p. 23). Some conceptual confusion arises between the terms liberal and radical because liberal means radical in the United States while it implies centrist in Britain (Curran, 1996). This reflects the narrower political spectrum of the United States as compared to that of European countries. Following Kellner and Curran, I use the term liberal in a centrist sense.

Approaches to Press-State Relations

I consider existing studies of press-state relations in terms of the normative, institutional, and symbolic approaches. While the normative approach attempts to offer categories of normatively desirable or undesirable forms of press-state relations, the other two approaches are concerned with empirical investigation of press-state relations: One examines the patterns of interactions between the press and the state and the other studies the press coverage of politicians and state policy issues. Note that the elements stressed in these three approaches are only analytically separate. As will be seen, these elements are closely interrelated and mixed in most studies of press-state relations.

Normative Approach

The normative approach refers to the efforts to establish broad categories of press-state relations in terms of normative roles assigned to the news media and the state for democratic governance.[2] To begin with, the conception of press-state relations is affected by whether one sees the press as an institution separated from the state or as a political institution in itself. While many scholars have seen the press as a politically independent institution, some scholars have regarded the press as an active participant in the political process as a "fourth branch of government" rather than a mere "recorder of government" (Cater, 1959). For those who see the press as a participant in the governing process, the elements involved in press-state relations are hard to disentangle, because both the state and the press constitute a composite unity (Blumler & Gurevitch, 1981; Cook, 1998; Hess, 1996; Rivers, 1980). In this view, journalists serve as political actors, whose main role is to interconnect the other three branches of government and to facilitate policy elites' decision-making by forming public opinion (Cook, 1998).

The concept of press freedom has played an important part in the normative approach. Brasch and Ulloth (1986) characterized press-state relations by tensions between the government's desire for more authoritarian control over the press and the public's demands for more freedom of expression. They noted a conflict in the views about freedom of expression between power-holders and power-seekers. Power-holders attempt to tighten press freedom to retain power: Once they attain power, "those who formerly argued for the limitless right of free expression develop reasons for limiting that expression" (Brasch and Ulloth, 1986, p. xii). Press freedom was the central concept in Carpenter's (1995) historical study of the patterned relationship between the press and government during wartime. Pointing out the inherent tension between press freedom guaranteed by the First Amendment and the government claim of national security, Carpenter argued that the U.S. pursuit of a global interventionist foreign policy since the end of the World War II put the principle of press freedom in trouble. He used "government lapdog" or "administration echo chamber" to describe the captive role of the media during the Gulf War.

Two contrasting viewpoints have existed in defining press freedom. While one position emphasizes freedom of the press from the state as essential for democratic governance, the other position stresses the importance of state intervention for keeping the corporate interests from dominating the media space at the expense of the public interests (e.g., Picard, 1985). Among those who hold the former position, some see the politically independent press as sufficient for enhancing democratic governance (e.g., Carpenter, 1995; Holmes, 1986; Press & VerBurg, 1988; Rivers, 1970); some others emphasize the importance of press freedom from corporate power as well as from state power for achieving the democratic goals of increasing political participation and decreasing economic inequality among citizens (e.g., Cook, 1998; Habermas, 1974, 1989; Hackett & Zhao, 1998; McChesney, 1997).

Many scholars have regarded the transformation of the partisan press into the commercial press during the mid-nineteenth century as having provided an institutional basis for the news media's autonomy from political authorities. This has had a strong ideological implication. Because of the fact that press freedom was developed as strategic opposition to the absolute state to expand the citizen sovereignty, though it was confined to the bourgeois citizenship, the negative impacts of corporate media ownership on democratic practices of political actors, including journalist, have been rarely questioned in liberal media studies. This has led to the dominance of a perspective that regards the government as the sole foe of press freedom. The underlying myth in this perspective is the view of the market system as the best mechanism for optimal allocation of power and resource in a society (McChesney, 1997). However, the net influence of corporate media ownership on press-state interaction is the penetration of "journalistic standard of news into political standard of governance" (Cook, 1998, p. 2). This means that state officials must accommodate to the organizational need of the news media in order to achieve their own political goals through the media that serve as channels for publicity.

The classic example of the normative approach is the "four theories of the press" by Siebert, Peterson and Schramm (1956), who attempted to delineate types of "the relation of the press to society or to government" (p. 9) by assuming that the press is shaped by "the social and political structures within which it operates" (p. 1). They derived four normative categories of the press based on the system of social control affecting the press operation, namely, the authoritarian, libertarian, social responsibility, and now-defunct Soviet communist models. They regarded the authoritarian and libertarian models as two prototypes of press theory and the other two models as 20th-century adjustments of the libertarian and authoritarian theories of the press.

The authoritarian theory, which was dominant in 16th and 17th centuries and is still influential in many countries, requires the press to serve the state. In this theory, the state has not only the power to decide what is truth but also the power to control the press (e.g., patent and censorship). The libertarian theory arose as a challenge to the authoritarian theory during the late 17th century and flourished in the 18th and 19th centuries. In opposition to the authoritarian theory, the libertarian theory claims that the press must be free from government control. Believing that the power to decide what is truth belongs to the general public, this theory holds that the press must operate in a "free marketplace of ideas." The press is endowed with the right to check on government as the fourth estate to protect the public from undue exercise of power by the state. Freedom of expression and a free marketplace of ideas are the two elementary components in the libertarian theory.

With the expansion of the role of the state by the turn of the 20th century, and, perhaps more importantly, with the growing concentration of press operation in a handful of powerful groups who "determine which persons, which facts, which versions of these facts, shall reach the public" (Siebert et al., 1956, p. 5), scholars began to recognize problems with the libertarian theory, such as the practical difficulties of objective reporting and the negative consequences of the free operation of the media industry. The subsequent social responsibility theory imposed on the press an obligation to be socially responsible while retaining the principle of freedom of expression. These two contradictory values in defining press roles (i.e., freedom and social responsibility) have acted as guiding threads in the conception of press-state relations for both conservative and liberal media critics.

In general, the normative approach has focused on the media and democratic policy-making. For example, regarding the information available to the participants of policy-making as the *modus operandi* of representative democracies, a free and responsible model views the media as playing a crucial role as indispensable channels of information for both the general public and policy-makers (Ansolabehere et al., 1993; Bennett, 1995; Ettema & Glasser, 1994; Glasser & Salmon, 1995; Graber, 1993; Ripley, 1994; Swanson & Mancini, 1995). To enhance democratic accountability in the policy-making process, the media are supposed to act as a politically independent "watchdog," which must check excessive governmental activities on behalf of the public. That is, the press and the state must act as adversaries (Rivers, 1970). The question of how these two adversaries see each other has been one of the central concerns in liberal studies of press-state relations. This supposed adversarial relationship between the press and the state has led to a variety of responses from scholars of different ideological positions.

For example, many liberal media critics have regarded the notion of a politically independent watchdog as a mystification because the news media actually serve political and corporate elites. This has led to the concept of the news media as "guard dogs," or agents of social control (Altschull, 1984; Donohue, Tichenor & Olien, 1973, 1984, 1995; Entman, 1989; Molotch & Lester, 1975; Paletz & Entman, 1981; Parenti, 1986; Tichenor, Donohue & Olien, 1980). Tichenor and his colleagues' concept of "guard dog" was based on the media's capacity to control knowledge in favor of power elites (Donohue, Tichenor & Olien, 1995). Whereas the watchdog metaphor assumes political independence of the press to serve the public interest, the guard dog concept implies that the media actively protect the interests of power elites. The concept of guard dog thus suggests an intimate relationship between the press and power elites.[3] Altschull (1984) called the media "agents of power" to imply that the media monopolize the information needed for democratic governance in a way that legitimates the status-quo. Critical scholars have used the concept of "secondary definers" to describe the role of the media as ideological supporters for the political authorities, who act as "primary definers" of social realities (Hall et al., 1978).

The normative approach has offered several useful normative categories for describing press-state relations. However, determined mainly by ideological-political positions of individual scholars, these categories are more intuitive than empirically documented.[4] This does not mean that the normative approach is useless, however; rather, it offers valuable guidelines for empirical analysis of press-state relations by providing basic ideas about the roles that the press must perform to accomplish democratic ideals. To expand the normative ground of press-state relations, I propose to base studies of press-state relations on Habermas's (1974, 1989) concept of the public sphere. This concept informs that the press, as a sphere of public debate, must play a central role in democratic policy-making by mediating diverse actors engaged in rational-critical decision-making on public matters.

Institutional Approach

By the institutional approach I refer to efforts to examine institutional (and interpersonal) influences between the press (personnel) and the state (personnel). Two major types of research exist in this approach. One group focuses on the structured relationship among the press, the state and corporate elites; and the other group is concerned with the institutionalization of press-state relations built on the journalistic routines and standards set for efficient news reporting.

The structured relationship between the press and the state has been studied by examining interlocking directorates among the news media, big business corporations, and administrative branches of the government (see, e.g., Bagdikian, 1983; Clement, 1975; Dreier, 1982a, 1982b). This group of studies regards the structured relationship among the news media, state officials and corporate elites as the main factor making journalists represent the interests of capital. Dreier (1982a), for example, argued that the media more closely linked with the political and corporate power elites had greater journalistic and political influences in the United States. Similarly, in his study of the Canadian corporate elite, Clement (1975) explained the media's pro-establishment bias by the interlocking directorates between the media and big corporations and the media's economic dependence on advertising revenue.

These studies have contributed to media studies by recognizing the ideological implications of the structured press-state relationship for public policy outcomes. By focusing solely on the economic aspects of the institutional links among the media, the state and big business, however, these studies have ignored how diverse actors try to make their position natural in the public's making sense of the policy-making process. The underlying assumption of these studies is that the shared interests between the state and corporate elites have a significant influence on the practices of the press. These studies generally find the pro-establishment bias of the news media in monopolized media ownership.[5]

The major trend in the institutional approach has been to examine the relationship between journalists and officials as news sources (see, e.g., Blumler & Gurevitch, 1981, 1995; delli Carpini, 1994; Entman & Paletz, 1980; Gans, 1979; Gurevitch & Blumler, 1977; Hess, 1981, 1983, 1984, 1991, 1996; Martin, 1981; Sigal, 1973; Tracey, 1978). These liberal studies of routinized source-reporter relations, the main source of press-state relations studies thus far, have shown that politicians as news sources influence news-making through their contacts with journalists. Also included in this approach is the examination of the attitudes that journalists have towards government officials, and vice versa (Buss and Malaney, 1978; Glick, 1966).

Blumler and Gurevitch (1981) proposed a transaction model to overcome the limited explanations of the institutionalization of reporter-source relationship in the adversary model (Rivers, 1970) and the exchange model (Grossman & Rourke, 1976).[6] As a way to overcome the adversary model's overly normative premise and the exchange model's narrow focus on purposive action, Blumler and Gurevitch's (1981) transaction model suggested an interdependent, adaptive, and role-regulated relationship between journalists and politicians. This model explains institutionalization of press-state relations by the patterned role relationship between journalists and politicians. Specifically, Blumler and Gurevitch (1981, p. 481) argued that role prescriptions of journalists and politicians leads to a stable patterns of politician-journalist interactions. In this model, reporter-source relations are characterized by the coexistence of conflict and cooperation.[7] The limitation of this model is that, by overconcerning with the existing forms of adversarial vs. symbiotic elements, it does not consider the question of possible transformation.

Liberal media scholars explain the institutionalization of press-state relations in terms of the news routines and news values developed by the news media for effective news-gathering. For example, many scholars argued that news-gathering routines produce a patterned press-president relationship. Among the policy actors, the president has an advantage over others because the journalistic standard of news values has regarded the presidency as the most important institution in the United States (Balutis, 1976; delli Carpini, 1994; Cornwell, 1959; Gans, 1979). The priority of presidential activities in news reporting has made covering the White House the most prestigious beat in the U.S. journalistic community (Glick, 1967; Halberstam, 1979; Hess, 1981, 1984; Sigal, 1973; Nelson, 1994). This enables White House staffs to control the substance and tone of presidential coverage by providing raw materials for news products. However, this does not guarantee positive presidential coverage by the press, because journalistic norms require journalists to seek oppositional sources. For example, the assigned watchdog role encourages the press to criticize the president. Further, the principle of objectivity requires oppositional voices for balanced reporting. The standard of news values, or what Gans (1979) called "para-ideology" of journalists, also encourages reporters to seek oppositional voices because it prefers conflict over consensus.

The evaluation of the impact of organizational routines and news values on press coverage of the president has been therefore controversial. Nelson (1994) argued that the president usually receive a favorable press coverage despite the widespread journalistic cynicism since the Vietnam War and the Watergate scandal. For Patterson (1994), however, negative presidential coverage is rather a rule than an exception in the United States. Patterson (1994, p. 26) argued that what he called the "hypercritical" journalistic practice, i.e., the practice that creates a cycle of criticism by quoting opponents to balance the president's claims, harms the democratic ideal because it reduces the effectivity of the policy-making process by fostering mistrust of political leaders among the general public (also see Patterson, 1993). However, the fact that the president receives abundant press coverage is more significant than whether the coverage is positive or negative, because massive media coverage of any type reinforces the image of importance of the president. More important, in most cases the search for oppositional voices is confined to criticism from within policy-making circles. The effect of this "established criticism" is ideological, making the public believe that the policy-making process is fully democratic. This tells why critical media scholars locate the news media's ideological role in news routines (see Gitlin, 1980; Hackett, 1991; Hall, 1982; Hall et al., 1978; Hallin, 1986, 1987, 1994; Rachlin, 1988).

We have no extensive historical studies of press-state relations, but several scholars have noted the political implications of the routinized source-reporter relationship for social control. Hallin (1987), for example, suggested that the transition from a partisan to commercial press in the early 19th century played a crucial role in routinizing U.S. press-state relations. By the 1950s, Hallin argued, the relationship stabilized as the news media interacted on a regular basis with government officials for effective news gathering. Despite U.S. news media's efforts to find diverse information sources, according to Hallin, the basic structure of press-state relations has remained unchanged. That is, the media's reliance on government officials as primary news sources has continued to reinforce the legitimacy of political authorities.

Press-state relations have been routinized because U.S. presidents since Franklin Roosevelt have used the press conference as a means to increase their visibility (Martin, 1981, p. 455). The press-president relationship is described to have gone through three stages (delli Carpini, 1994, pp. 192-4): (a) from the 1920s to the mid-1960s, (b) the late-1960s and the 1970s, and (c) the 1980s and after. The first period is characterized by positive press coverage of presidents. The media were so supportive during this period that the late President John F. Kennedy once lamented after the Bay of Pigs fiasco that more aggressive press coverage of the planning of the invasion would have prevented him from approving it (delli Carpini, 1994, p. 192). The second period is characterized by the rise of the press as a dominant force in U.S. politics, due to the Vietnam War and the Watergate scandal. President-press relations became more adversarial than cooperative during the 1970s. Finally, the Reagan presidency marked a new era, namely, a return to presidential dominance. This was done through the presidential aides' conscious efforts to make news coverage in their favor be designing carefully orchestrated media events (Hertsgaard, 1989). The Reagan team's media strategy was evaluated as a remarkable success (Hertsgaard, 1988; Kellner, 1990; Nelson, 1994).

In sum, the institutional approach has tried to show how press-state relations are sustained in spite of the existence of tensions between cooperation and conflict. Despite the efforts to provide empirical evidence of institutionalized press-state relations in this approach, its narrow focus on the adversarial vs. symbiotic aspect of source-reporter interactions is somehow problematic. Assumed in this approach is that journalists and politicians, as rational actors, can make their decisions relatively free from the structural constraints. The empirical potential of this approach can be fully realized only when we consider that journalistic practices or routines themselves are constrained by the dominant cultural assumptions or hegemonic ideology of a society.

Symbolic Approach

The symbolic approach refers to efforts to examine press-state relations by analyzing press coverage of state policy issues or governmental actions (e.g., Bennett, 1990; Brennan, 1994). In his effort to build a theory of press-state relations, Bennett (1990) suggested an "indexing hypothesis," which states that "news is indexed implicitly to the range and dynamics of governmental debate but has little relation to expressed public opinion." He confirmed his idea by analyzing the *New York Times*'s coverage of the Reagan government's policy of funding Nicaraguan Contras. Bennett's work, however, is of limited value for explaining the complexities of press-state relations. By focusing on the frequencies of positive or negative media coverage, Bennett ignored the importance of the media's role in the process of policy formation, which should be pursued in the dynamics of "policy culture" created by the media, policy makers, and the general public. The media's role may be more adequately understood by analyzing the patterns through which the media create and recreate certain policy issues rather than simply analyzing the frequencies of positive or negative elements in media coverage.

Brennan's (1994) study of the Canadian press coverage of government activities explains the positive press coverage of state policies in terms of a shared ideological framework between journalists and politicians. Brennan argued that Canadian journalists and politicians have a "responsible, civilized relationship," which is built on the journalistic practices of reporting accurately (news reports) and commenting intellectually (editorials and commentaries). Brennan described the Canadian press system of the Liberal Years (1935-1957) as the "liberal press establishment," which was characterized by mutual trust between journalists and liberal politicians. He saw the pro-government tendencies of the established press system as an outcome of the pro-liberal ideological slant of the Canadian press: "The longer the liberals remained in power and governed well, the more firmly the press-government relationship had been cemented and the more deeply the members of the liberal press establishment had become colored with the perspectives of the liberal bureaucratic establishment" (Brennan, 1994, p. 179). Brennan's emphasis on the ideological orientations of the journalists also has theoretical problems, because it is based on an assumption that news directly reflects individual reporters' political values, ignoring that media space is a site for conceptual contestation.

The main problem of Bennett's and Brennan's works is that their studies are confined to analysis of negative or positive aspects of press coverage of state policies. These works are problematic because they neglect that press coverage of negative voices can also help legitimate state policies and their providers. For example, press coverage of several established criticisms of a certain policy issue would be more effective for attaining legitimacy than giving unlimited support to the issue, because it would help increase the sense of democratic accountability of policy-making among audiences. This may suggest that the ways the media construct negative and positive voices become more important for a comprehensive understanding of the press coverage of state policy issues and, hence, by implication, press-state relations. The symbolic approach can help reveal the signifying role of the press vis-a-vis the state by focusing on the ways the news media make public policy issues meaningful to the general public.

Thus far, I examined press-state relations in terms of three approaches. As was expected, however, the normative, institutional, and symbolic aspects of press-state relations are intertwined in complex ways. For example, the ways the news media organize the social world are guided by journalistic routines of news-making, which many scholars have regarded as the basis for institutionalization of press-state relations. Models of power help clarify these complexities of press-state relations.

Models of Power: Implications for Press-State Relations

How one sees the nature of the power structure of a society affects how one sees the function of the media (Good, 1989). The concept of power informs studies of press-state relations by considering the following questions: Which part exercises power (the press, the state, or a certain combination)? What forms of power are exercised by the press, the state, and other participants in the policy-making process? What are the sites where power is exercised? In what follows I will relate press-state relations to models of power. My main argument here is that we can expand the realm of press-state relations by relying on the Foucauldian notion of "power/knowledge" (Foucault, 1980). Foucault's power/knowledge rejected the separation between discourse and practice in liberal and Marxist social theories. For Foucault, discourse is power because the discursive rules enforce norms of what is rational, true or desirable, and the discursive practices deviating from these rules risk marginalization and exclusion. I attempt to combine the Foucauldian framework of power with the Gramscian framework of hegemony to offer a way to analyze the press-state nexus as a discursive terrain where diverse social forces struggle for a dominant position.

Scholars have regarded liberal pluralism and the critical perspective as two sources of ideal types of power. Liberal pluralists see power as diffused in a society through interconnected interest groups. In this view, power domination by one single interest group is impossible because individuals in a pluralistic society have diverse interests (rather than one single interest) through cross-cutting memberships. By contrast, critical scholars view power as monopolized by a handful of dominant social groups.[8] By adding a revised, more critical, version of the liberal pluralist view of power to these two conventional views, Lukes (1974) grouped the models of power in existing social research into three categories: (a) a one-dimensional view of manifest and observable power; (b) a two-dimensional view of latent but still behaviorist power; and (c) a three-dimensional view of latent and ideological power. I would add (d) a four-dimensional, Foucauldian view of discursive power, which views power not as a substance but as a network of relations. This addition completes a conceptual map of four categories of power conceived in terms of two polarities, i.e., behaviorist-cognitive (or symbolic) and micro-macro: The first view represents the micro-behaviorist model of power, the second the macro-behaviorist model, the third the macro-ideological model, and the last the micro-discursive model.

The one-dimensional view of power represents the conventional liberal pluralist view that power is evenly distributed over a wide range of interest groups (Dahl, 1956, 1958, 1961, 1982; Dahl & Lindblom, 1953; Polsby, 1963). This view sees power as a form of influence, focusing on empirically verifiable behaviors of individuals involved in conflict situation. In this model, a person (A) has power over another person (B) when A affects overtly the decision-making of B. The central idea of this model is that plural power structures contribute to social stability by inducing healthy consensus among competing interests. This view is based on two pluralist premises: (a) Diverse interest groups attempt to mobilize their resources as much as possible to achieve their own interests when social issues are brought into public debate; and (b) the cross-cutting membership makes it difficult for one particular interest group to monopolize the whole process of decision-making. The one-dimensional view of power has led one to see the media as disinterested sources of information, which must objectively reflect competing interests in the policy-making process. This view has been implicitly assumed in mainstream media-effects studies and in the normative theory of a free and responsible press.

Lukes's two-dimensional view of power is based on Bachrach and Baratz's (1962, 1963, 1970) critique of the conventional pluralist view of power for confining power in decisions. The key point of their critique of the conventional pluralist model of power was that nondecision-making also can lead to an exercise of power by preventing certain issues from ever reaching the decision-making arena.[9] The two-dimensional view of power, or the power elite model of power (Rachlin, 1988), therefore, suggests that power elites can exercise power even in consensus situations if the consensual values suppress challenges to the existing social order. This view has led media scholars to see the media as protecting the interests of power elites by preventing oppositional social groups from expressing alternative interests. According to this view, the agenda-building process itself becomes a form of power, because it is a selective rather than objective representation of social events by the media. The two-dimensional view of power hence implies that the media serve power elites by keeping important political issues from becoming public.

This two-dimensional view of power also has a behaviorist bias, focusing on the active manipulation of observable conflicts by power-holders. In this model, if there is no observable grievance by B, then a genuine consensus exists between A and B, meaning that power is not exercised by A. Another significant theoretical problem with this model of power is that it has, like the one-dimensional view, an inherently individualist bias, that is, it defines power on the basis of individuals' decision-making. The growing concern with the impact of journalistic routines and structural constraints on media practices challenged the branch of media studies guided by the individualist or behaviorist conception of power. The consequent new perspective stresses that the media serve the interests of the dominant class by expanding the hegemonic ideology of a society. This is an influence of the three-dimensional view of power.

Lukes's (1974) three-dimensional view of power, or what he called a radical view of power, is "a thoroughgoing critique of the behavioral focus of the first two views as too individualistic and allows for consideration of the many ways in which potential issues are kept out of politics" (p. 24). Whereas Bachrach and Baratz's (1962) "second face of power" focuses on the consensus-building process, which they characterized as suppression of voices of grievances, Lukes's radical view of power pays more attention to active conditioning of consensus to secure public consent. For Lukes (1974, p. 22), the suppression of grievances is no longer an individual-level power exercise but "a function of collective forces and social arrangements." In opposition to Bachrach and Baratz's view that there is no power exercise when there are no expressed grievances, Lukes (1974) argued that power can be exercised when some forces prevent individuals "from having grievances by shaping their perceptions, cognitions and preferences in such a way that they accept their role in the existing order of things, either because they can see or imagine no alternative to it, or because they see it as natural and unchangeable, or because they value it as divinely ordained and beneficial" (p. 24).

Many scholars relate Lukes's radical view of power to Gramsci's (1971) concept of hegemony, regarding it as a basis for conceptualizing communication as hegemonic power (Good, 1989; Hackett, 1991; Hall, 1982; Rachlin, 1988). Hall (1982) argued that Lukes's view of power, which he called an "ideological model of power," allows us to examine the ways in which the media give "a universal validity and legitimacy to the account of the world which are partial and particular" (p. 65). The ideological model of power made a contribution to critical media studies by permitting one to see the media as neither autonomous social actors nor mere passive reflectors of dominant ideologies but as key actors in the social process. On the one hand, the ideological model of power emphasizes the structural level of media power, regarding the symbolic process itself as a potential source of power if it makes it difficult for an individual or a group of individuals to express oppositional voices to the existing social order. On the other hand, it views the media as "signifying agents" that make social events meaningful to audiences. In this model, media representation involves the active work of "selecting and presenting, of structuring and shaping: not merely the transmitting of an already-existing meaning, but the more active labour of making things mean" (Hall, 1982, p. 64). This suggests why we must analyze media content in terms of "ideological structuration" rather than manifest meanings.

These three models of power commonly represent a modern, "power-over" notion of power, which views power essentially as exercised by one part over another (Hoy, 1986). As a reaction to the two behaviorist models of power, Lukes's radical view stressed the cognitive aspect of power exercise. This tells a transition in the conceptual basis of power, namely, from the observable behavioral effects in the decision-making process to the ideological effects in the meaning construction process. Foucault's view of power also emphasizes the discursive or signifying aspect of power exercise, but the main concern is different from Lukes's. While Lukes's radical view of power focuses on the macro-level ideological power exercised through the sites of the state or class relations, Foucault's concept of power/knowledge is more concerned with the micro-level operation of power. More important, as a postmodern view of power, Foucault's power/knowledge opposes the totalizing effects assumed in the three modern views of power, emphasizing the indeterminate nature of power exercise.

Foucault's concept of power is best articulated in his genealogical works, such as *Discipline and Punish* (1977), *Power/Knowledge* (1980), and *The History of Sexuality, Volume I* (1978).[10] Foucault rejected the modern conception of power prevalent in both liberal theories of citizen sovereignty and Marxist theories of class domination. Best and Kellner (1991, p. 57) understood Foucault as opposing two modern models, namely, the enonomistic model of Marxism that reduced power to economic class relations and the juridical model of liberalism that conceives of power in terms of legal enforcement. By putting these two models into what she called the "juridico-discursive" model of power, Sawicki characterized the modern view of power as follows (Sawicki, 1991, p. 20): (a) Power is possessed by an entity (e.g., individuals in the state of nature, a class, the people); (b) power is a top-bottom exercise, flowing from a centralized source (e.g., law, the economy, the state); and (c) power is repressive in nature (a prohibition backed by sanctions). As a theoretical reaction to the juridico-discursive model, Foucault's theory of power can be summarized as follows (Halperin, 1995, p. 17; Sawicki, 1991, p. 21): (a) Power is not a substance to be possessed but exercised; (b) power is not unidirectional, top-bottom exercise but undetermined, usually exercised from below; and (c) power is not negative or repressive but positive or productive.

First, for Foucault, power is not possessed by a person or institution but dispersed in complex relations among the constituents of a society: Power 'is intrinsically relational in character, specific political struggles are properly described not in terms of power *tout court* but in terms of "relations of power."' (Halperin, 1995, p. 17). While power-as-possession is preoccupied with "questions of legitimacy, consent and rights" of the subjects in power relations, Foucault's power-as-exercise focuses on the power relations themselves to show "how subjects are constituted by power relations" (Sawicki, 1991, p. 21). In opposition to the modern tendency to regard power as possessed, Foucault viewed power as inscribed in various discourses and institutional sites.

Second, Foucault's view of power is relational in nature, conceiving power not as a unidirectional force enforced by an oppressor upon the oppressed but as "a fluid, all-encompassing medium, immanent in every sort of social relation" (Halperin, 1995, p. 17). In criticizing modern views of power for the reason that they have obscured the entire network of power relations by locating power in centralized sources like the state, law and class relations, Foucault emphasized the importance of the examination of diverse forms of power relations operating outside these central sources. For Foucault, therefore, power is indeterminate and decentered; there is no center of power because there is no subject that holds absolute power. Power is discursively constructed and exercised through institutions of power/knowledge.

Finally, Foucault viewed power not as negative and repressive but as positive and productive. Foucault opposed negative conception of power, which views power as forms of repression, domination, coercion, or manipulation, arguing that this notion of power cannot explain how and why modern forms of knowledge emerged and functioned as a force for controlling the human body. In Foucault's theory, power produces the conditions of action, choice, hence of freedom. "Power is therefore not opposed to freedom. And freedom, correspondingly, is not freedom from power ... but a potentially internal to power, even an effect of power" (Halperin, 1995, p. 17). That is, rather than focusing on the liberal notion of inalienable rights of individuals in the state of nature or the Marxist notion of emancipation of humans as species being, Foucault tried to show that individuals' subject positions are produced by institutional, disciplinary practices. Foucault characterized modern society by the spread of disciplinary power, which, produced by certain forms of knowledge, is facilitated by the rise of the human sciences in the nineteenth century in Europe. In Foucault's view, the hierarchy of normal and abnormal constructed in modern forms of discursive power/knowledge serves as a means for social control or what he called "normalization." For Foucault, in other words, diverse microlevel power relations serve as general mechanisms of global domination by making themselves a part of dominant networks of power relations. He said:

> One must rather conduct an ascending analysis of power starting, that is, from its infinitesimal mechanisms, which each have their own history, their own trajectory, their own tactics, and then see how these mechanisms of power have been -- and continue to be -- invested, colonized, utilized, involuted, transformed, displaced, extended, etc., by even more general mechanisms and by forms of global domination. It is not that this global domination extends itself right to the base in a plurality of repercussions... (Foucault, cited in Sawicki, 1991, p. 23)

The notion of resistance is important in the work of Foucault. One important theme in Foucault's theory is that "power is everywhere." Moreover, according to Foucault, "Where there is power, there is a resistance, and yet, or rather consequently, this resistance is never in a position of exteriority in relation to power" (Foucault, 1978, p. 95). This means that resistance to power must take place from within the total relations of power. For Foucault, therefore, "What escapes from relations of power ... does not escape from the reach of power to a place outside of power, but represents the limit of power, its reversal or rebound. *The aim of an oppositional politics is therefore not liberation but resistance*." (Halperin, 1995, pp. 17-8; original emphasis)

Foucault's power is thus concerned with a strategy for modifying the existing relations of power: "I'm not positing a substance of power. I'm simply saying: as soon as there's a relation of power there's a possibility of resistance. We're never trapped by power: it's always possible to modify its hold, in determined conditions and following a precise strategy." (Foucault, cited in Sawicki, 1991, pp. 24-5). For Foucault the social world is a field of struggle, where power is exercised discursively by individuals on themselves and other individuals. In denying the unifying and totalizing strategies of Marxism, however, Foucault envisaged multiple forms of resistance by encouraging differences. Because power is decentered and plural for Foucault, the forms of political struggle is plural too.

The significance of models of power for press-state relations is the ability to locate the operational basis of the press and the state in the nexus of power relations. Liberal pluralists view the media as politically independent agents that objectively represent diverse social interests. By contrast, critical scholars see the media as serving the ruling interests. In the critical perspective, the absence of formal control of the media does not mean that the media are autonomous relative to the power structure. Rather, as Hackett (1991) pointed out, critical scholars understand that the media's role in the social process hinges on their legal, economic, organizational, and ideological relations with the state and other powerful institutions of a society. These macro constraints on the press can be more meaningful when we refer to the Foucauldian notion of power/knowledge.

Conclusion

The current thought about press-state relations is very abstract in nature. Another problem is the undialectical nature of the research scheme that pursues the fixed elements in press-state relations (be they in terms of adversarial-symbiotic or dominant-subordinate polarities) without serious theoretical consideration of the articulatory and indeterminate nature of the discursive practice of making sense of the world. Both Gramsci's hegemony and Foucault's power/knowledge can offer a useful framework for investigating press-state relations in terms of the signifying roles of the media and other actors involved in the policy-making process.

Hegemony has a potential for a comprehensive analysis to press-state relations, providing us with a coherent theoretical framework for exploring the media as sites for ideological struggle among diverse cultural forces in a society (Park, 1998). By utilizing its process orientation (Williams, 1977), we can examine the signifying aspect of press-state relations (i.e., symbolic meditation between policy-makers and the general public) as a dynamic process of ideological domination and contestation in the policy-making process. In this framework, the relationship between the press and the state is not fixed but subject to transformation with the changes in balances of power between them. The power of the press and that of the state are meaningful only when their positions attain public acceptance. This implies the importance of signifying practices of the press, the state and the general public in the policy-making process. Press-state relations constantly undergo shifts because they are crucially embedded in the journalistic routines, norms and standards, which in turn are influenced by other structural constraints. There would be, for example, more room for media autonomy when there is less inter-elite consensus than when there is strong inter-elite consensus.

Foucault contributed to contemporary social analysis by providing an insight into the negative aspect of modern rationality and knowledge in the production of social norms and the pervasive operations of power in modern disciplinary institutions and human sciences. Foucault's power/knowledge has the potential to expand the value of hegemony for social analysis. The point here is that Gramsci's concept of hegemony and Foucault's concept of power/knowledge can benefit each other. Gramsci's concept of hegemony is more useful for explaining macro process of power domination and subordination in terms of power bloc formation and transformation, while Foucault's power/knowledge helps us to understand the micro-basis of power operation in the process of hegemonic domination and its transformation. Foucault's microperspective of power would be more convincing when combined with Gramsci's macroperspective, which pursues such issues as state power and hegemonic class domination. These two perspectives combined help to examine press-state relations by viewing the press-state nexus as a discursive terrain where diverse policy actors struggle for a dominant position in articulating specific policy issues.

Notes

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[1] Blumler and Gurevitch (1981) identified two ideal types for interpreting the dominant-subordinate polarity of press-state relations as the Marxist and McLuhanian approaches. Marxists, they argued, regard the press as subordinate to the ruling power bloc, emphasizing that state officials as news sources have the power to guide the media output (e.g., Hall et al., 1978). By contrast, McLuhanians see the media as "power bastions, reality definers, and sites of professional cultures, with which other institutions must then come to terms" (Blumler & Gurevitch, 1981, p. 468). McLuhanians thus regard the press as the dominant institution of a society to which other institutions, including the state, must conform (e.g., Altheide & Snow, 1979). Blumler and Gurevitch's argument seems to be problematic, however. In reality, within both the Marxist and McLuhanian approaches exist different forms of contingent relationships that assume varying degrees of mutual influence between the press and the state.

[2] The normative roles of the media include (see Martin, 1981, p. 447): (a) a provider of objective information (Dunn, 1969; Nimmo, 1964; Sigal, 1973); (b) an interpreter of the social world (Gans, 1979; Hall et al., 1978); (c) a watchdog that must represent the public vis-a-vis the government (Cater, 1959; Rivers, 1970); (d) a holder of public opinion (Glasser & Salmon, 1995; Habermas, 1989; Nimmo, 1964; Ripley, 1994); and (e) a participant in the governmental process (Cater, 1959; Cook, 1998; Dunn, 1969; Sigal, 1973). The normative roles that the state assumes in relation to the press include (Brasch & Ulloth, 1986): (a) a "suppressor" of expression (i.e., the state limits elements permitting freedom of expression and restrains expression it finds offensive or threatening to national interests); (b) a "facilitator" of expression (i.e., the state encourages press freedom within the boundaries of serving national interests); and (c) a "manipulator" of expression (i.e., the state uses the press to promote its own interests).

[3] Tichenor and his colleagues distinguish between "guard god" and "lapdog." According to them, both the metaphors of "guard dog" and "lapdog" imply that the media protect the interest of power elites. However, they prefer the concept of "guard dog" to that of "lapdog" because the latter assumes that the media are always submissive to the power-holders of a society. Instead, they argue, the guard dog concept is related to the community's conflict level, hence is more useful for studying the function of the media in social processes (see Donohue et al., 1995).

[4] Martin (1981) thus attributed the reality of limited empirical studies of press-state relations to the fact that the relationship among the media, public, and government "is laced with normative problems that we would rather leave to lawyers and philosophers than tackle empirically" (p. 445).

[5] Calling holders of this view "radical instrumentalists," Hackett (1991, pp. 62-3) criticized them for (a) a narrow focus on the conscious manipulation by media owners, (b) an ambivalent mixture of pessimism and optimism in the political prescription of the news media (pessimism in that oppositional movements are seen as unable to defeat media representation and optimism in that ownership change is seen as having potential to reverse the patterns of media signification), and (c) a naive assumption of audience passivity. Despite these shortcomings, this approach has provided considerable evidence that the press-state nexus works for capitalist domination.

[6] The adversary model is limited because the overly normative premise of the adversarial relationship serves as a constant, not a variable, in defining press-state relations. The exchange model solved this flaw by focusing on the interdependence between politicians and reporters. By focusing on the immediate forms of interaction between journalists and politicians as purposive actors, it fails to consider that various normative and institutional factors exert influences on the forms of reporter-source interaction (Blumler & Gurevitch, 1981, p. 474).

[7] Reflecting the influence of the transaction model, many liberal scholars characterize press-state relations by institutionalization of conflict and cooperation between politicians and journalists. The term "a love-hate relationship" has been frequently used to mean that reporters and politicians hate each other but must rely on each other. Other terms used include "an ambivalent relationship" (Carpenter, 1995), "a star-crossed romance" (Charles & VerBurg, 1988) and "critical symbiosis" (delli Carpini, 1994). According to delli Carpini (1994), an adversarial relationship dominates when conflicts exist between the interests of the press and the president, and a symbiotic relationship dominates when cooperation emerges out of their mutual needs. For delli Carpini, however, the general tendency in the press-president relationship is the

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institutionalization of a symbiotic relationship due mainly to the growing mutual dependence between them.

[8] Reflecting these two contrasting views of power is a split in the conception of the media. Whereas liberal pluralists regard the media as vehicles for objective representation of diverse interests in the policy-making process, critical scholars view the media as serving the ruling class interests.

[9] Using Bachrach and Baratz's (1970) words, a decision is "a choice among alternative modes of action" (p. 39), and nondecision is "a decision that results in suppression or thwarting of a latent or manifest challenge to the values or interests of the decision-maker" (p. 44).

[10] While Foucault's earlier archaeological concern was put on discourse and knowledge, the central themes in his later genealogical works were power and subjectivity. Foucault preferred to use the term discourse to the Marxian concept of ideology because of the unifying effects implied in ideology (Foucault, 1980). In criticizing the totalizing effects of modern theories rooted in the Enlightenment tradition of rationalism (both liberalism and Marxism), Foucault emphasized the heterogeneity, complexity, and discontinuity of power relations in the social process.

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The Ideological Dimensions of Stereotyping in the Media: Toward a Conceptual Clarification

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Abstract

Searching for stereotypes in the mass media is a common scholarly endeavor. Much research assumes that the media are full of stereotypes and their effects are deleterious. This study investigates the concept of "stereotype" as developed by Lippmann and examines current use of the term in mass communication research. The author suggests that most often the term is poorly conceptualized and the implications of this misconception deserve closer scrutiny by the academy.

Within the field of communication studies, scholars have been drawn to the subject of stereotyping for many years. This is especially the case for those who are students of the mass media. Barker (1989) aptly states that "the search for 'stereotypes' in the media has become a small industry in its own right" (p. 206). In addition, this cottage industry has been very purposeful. As Kitch (1997) points out, much of the research on stereotyping borders on social activism, "naming stereotypes to call for a change in the real world" (p. 478). Such study is often framed in within research on ideology with the assumption being that a powerful group in culture is perpetuating views of powerless groups that are beneficial to the former and detrimental to the latter.

In some ways, this work is commendable for its desire to make the world a better place. Concern for those who are powerless in society is an admirable quality. The zealous manner in which many scholars attempt to detect, describe, and understand the effects of stereotypes is a tribute to the field. Yet oftentimes members of a particular community need to be reminded that "zealous" is etymologically derived from the same root as the word "jealous." As scholars we always risk the possibility that we might be replaced by rivals and this can be a source of our zealousness. Hence our views on a particular issue often become entrenched, even if they are not consistent or coherent.

Quite possibly this is the situation in the broad field of stereotype research. More important for our immediate purposes, I suggest here that we should seriously consider if this is the situation in mass communication scholarship on the subject of stereotyping. Though much good scholarship is done in the field, there is also much in our journals that is poorly conceptualized, contradictory of other work by scholars with similar political goals, and downright confusing.

The purpose of this paper is to examine recent research on stereotyping gathered from scholarly journals in mass communication. The goal is to demonstrate that careful examination of a recent body of scholarship on stereotyping calls into question much of what we think we know. Though the author is sympathetic to issues of ideology and potential hegemony, many of the issues raised below raise serious doubts about whether our knowledge of such is seriously limited by our inability to look at issues of stereotyping through a lens other than ideological hegemony.

DEFINITIONS AND LOCATIONS OF STEREOTYPES

Barker's comments—cited earlier—that the search for stereotypes has become a form of cottage industry might invite another metaphor. The search for stereotypes has become a sport. This parlor game is played by amateurs and professionals alike. The amateurs sit at home reading their newspapers or watching their television shows and often encounter an image they see as a stereotype. Any college professor who teaches courses related to the mass media has heard a student (often very new to critical analysis of the media) claim to find a stereotype in the media. College professors themselves are the professionals in this endeavor. When done teaching classes they vigilantly dissect the same programs amateurs watch for fun. Quite frequently the professional finds many more stereotypes than does the amateur.

Yet the odd thing about the game described above is that it has very lax rules. A key element in this laxity is an unclear definition of the item for which the parties are searching. To claim that one has encountered a stereotype in this fashion requires a concise and consistent conceptualization of stereotyping—something that has been lacking since the term was first brought into widespread usage by Walter Lippmann. Lippmann devoted an entire section of his work *Public Opinion* (1965) to the issue of stereotypes. Therein, he proposed two very different views of the concept. One view saw the stereotype as a cognitive tool to make sense of a world that William James (1918) claimed was "one great, blooming, buzzing confusion" (p. 488). Seen as such, a stereotype is an "image" that flickers before our eyes when we are exposed to confusing stimuli (Lippmann, 1965, p. 56). Such stereotypes thus "intercept information on its way to consciousness" (p. 57). They do so by forming a "stock of ideas" (p. 59) that offer limited numbers of options for dealing with new phenomena. Such an economical means of dealing with a world of "buzzing confusion" prevents complete exhaustion. Moreover, according to Lippmann, "the abandonment of all stereotypes for a wholly innocent approach to experience would impoverish human life"(p. 60).

At the same time, Lippmann (1965, p. 63) also proposed a more sinister view of stereotypes. In his chapter on stereotypes as defense mechanisms, he suggested that stereotypes are a means by which some in society protect their privileged position. The examples to which he most frequently alluded are ancient Greek attempts to justify their continued practice of slavery and German efforts to envision Belgians (and Catholics) as ruthless enemies during time of warfare. While the earlier definition of stereotyping described a practice—or perhaps even a detached phenomenon—that was inevitable, the latter suggested human action that is more purposeful.

Hence many scholars in the late 20th century have focused on the latter definition as a means of using research in stereotyping to propose alternative human practices. As noted earlier, Kitch (1997, p. 478) summarizes recent stereotype research, saying "Much of it took an activist tone, naming stereotypes to call for change in the real world." Eaton (1997, p. 860) offers a similar description of the ameliorative effects of stereotype scholarship, claiming that upstart television networks of the late 1990s were "increasing stereotypical portrayals of women rather than reducing them" and therefore feminist scholarship should address the issue. Fujioka (1999, p. 52) offers another example of a researcher who perceives danger in stereotypes. She states that stereotypes "can be destructive or bad when used by the dominant group to underscore majority-minority differences or to make some other (e.g., ethnic minority groups) inferior." Kilbourne (1990, p. 31) not only describes the danger of stereotypes, but aims to remove them, stating that "nonpreferential job treatment" is the ultimate goal of his study. Each of these assessments fits well with common ideological approaches to understanding mass media that suggest dominant channels of communication are tools of oppression and the role of the scholar is to bring about change.

Yet such studies demonstrate the difficulties that have occurred when scholars sanction Lippmann's work and proceed into empirical scholarship without clarification. In this instance, the difficulties are twofold. First, definitions of "stereotype" and "stereotyping" have often been assumed, given the high respect for Lippmann's original opus. Second, such failure has confused the locus of study in stereotype scholarship, with an awkward and often poorly executed analysis of media images.

On the first count, we do not need to look far to recognize that there is often avoidance or inconsistency in defining "stereotype" for media research. To give an example, during the 1990s *Journalism and Mass Communication Quarterly*[1] published ten different articles in which "stereotype" (or a variation of the basic word, such as "stereotyping") was used in the title of the article or in the abstract. In seven of these articles (Kilbourne, 1990; Lester, 1994; Entman, 1994; Jolliffe & Catlett, 1994; Lafky Duffy, Steinmaus, and Berkowitz, 1996; Kitch, 1997; Eaton, 1997) no formal definition of stereotype was provided. Perhaps this reflects what Pickering (1995, p. 691) meant when he said there is a "fundamental dilemma that exists at the heart of the concept itself." In any case, the assumption appears to be that the researchers and the readers are clear in their understanding of what constitutes a stereotype. Yet such an assumption is far from justified and its validity is called into question by odd and sometimes contradictory claims as to what is and is not a stereotype. To cite one example for the moment, Eaton (1997, p. 860) states that to show a woman as "attractive" is to "present women stereotypically." An examination of the validity of this and other claims will be made later when we discuss stereotype detection.

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[1] The reader should note that the title of this journal changed in 1995, from *Journalism Quarterly* to *Journalism and Mass Communication Quarterly*. For the sake of simplicity, references to the journal as a whole will use the current title.

For now, a better place to notice the difficulty in assuming shared definitions of the term is the location in which many of these researchers hope to encounter stereotypes. Perhaps because of a preference for Lippmann's second vision of stereotypes—in which they are active, purposeful processes—many researchers have searched in media products themselves to find stereotypes. The difficulty posed here is that Lippmann's work should focus our attention not on media images, but on human thinking processes. After all, a large part of his conceptualization of the term was referenced toward psychological processes of common people.

To seek stereotypes in media products (news accounts, television programs, motion pictures, etc.) themselves is therefore not the best avenue of research. If stereotypes are cognitive processes, we should seek them in the internal actions of individual minds, not in the artifacts of a culture. But artifacts of culture have been examined for stereotypes over and over again. Many recent studies have either made claims to have successfully found such stereotypes, or have based their own research on earlier studies that were seen as successful in that venture. Jolliffe and Catlett (1994, p. 801), for example, claim that women's magazines "have stereotyped women in extremely demeaning ways." Similarly, Lester (1994, p. 390) states that the trend in newspapers has been "to show more, not fewer stereotypical images." Lafky et al. (1996, p. 380) claim that advertisements present "stereotypical portrayals of individuals." Eaton (1997, p. 860) states that "Prior content analyses of network programming all encountered underrepresented and stereotypical portrayals of women." And Kitch (1997, p. 478) claims that "Popular culture, especially magazines, contained visual as well as verbal representations in which historians found stereotypes."

What all of these studies have in common is a claim to be able to look within cultural products (within varying media) and *detect* stereotypes in the products themselves. The scholars who engage in this research do not study the individuals who create those cultural products—a very logical place to envision cognitive processing if we are to think of stereotypes as Lippmann did. And, though in some of the cases there is attention to the effects of stereotypes, usually the cultural products themselves become of utmost concern. Within these cultural products there are putative stereotypes whose presence is empirically verifiable. Given any concise definition of stereotypes that has been provided thus far, this seems to be beyond the abilities of productive scholarship.

CATEGORIZATION OF "STEREOTYPES"

What should be clear from the previous section is that much research in mass media and stereotypes approaches the subject from an ideological standpoint. Three of the articles from *JMCQ* that were written in the 1990s take a more individual/cognitive perspective, standing in contrast. Given the ideological orientation of the others though, the images themselves (and the stereotypes presumed to be within them) become of utmost importance. Moreover, any understanding of the ideological effects caused by those images, is only meaningful when we have a firm grasp of the nature of the images. To assume importance in the effects when we have dubious knowledge of the characteristics of the messages that are themselves presumed to cause the effects is questionable.

But large number of studies which have set out to detect stereotypes in media content simply assume long term consequences for the society in which such media artifacts are disseminated. Many of these studies are merely descriptive, noting the existence of stereotypes in general or their changes over time. Some studies attempt to detect stereotypes in media products before using those products as an independent variable in quasi-experimental designs. In either of these approaches, though, the media content is of utmost importance and the factor that is presumed to be in need of immediate change. That is, researchers think that changes in media content will naturally lead to positive changes in society. Another way of expressing the current state of stereotype research is that scholars have proceeded from seeing stereotypes as an image that flickers in front of our eyes when we are exposed to certain stimuli, to seeing stereotypes as the stimuli themselves. The concomitant difficulty we wish to examine in this section of the paper is the conceptual definition of "stereotype" that would work with such presumptions.

Simply stated, this difficulty is manifest in three broad paths taken in recent stereotype scholarship. One of those paths is to see stereotypes (in the form of media images) as accurate reflections of an unpleasant world that humans have constructed. A second path is to see stereotypes as inaccurate reflections that in themselves make the world unpleasant for some citizens of our communities. A third path is probably closest to Lippmann's original conception of stereotypes. Herein, stereotypes are not necessarily negative or inaccurate, but they are limiting. Hence people who gain information mostly from mass media may have difficulty relating to stereotyped groups.

The first approach mentioned above appears to be the least common of the three orientations. Kitch (1997) was the only scholar among 1990s publications in *JMCQ* to clearly present this perspective, and did so in the form of a summary of work already done within it. She explains that the perspective is largely founded on the conceptual framework laid down by Tuchman (1978) and her "reflection hypothesis." Kitch also uses Friedan (1963) as a foundation for this theoretical approach, explaining how Friedan sees media imagery as a reflection of the world around us. More specifically, the reflection is accurate enough to sense the oppression women really experience. As evidence of such accuracy, Kitch quotes several scholars whose research into specific media is noteworthy. For example, Wald (1975) states that magazines serve to "mirror changes that took place in women's lives" (p. 5). In a similar fashion, Haskell (1974) explains that "Movies are one of the clearest and most accessible of looking glasses into the past, being both cultural artifacts and mirrors" (p. xiv).

The mirror metaphor Haskell uses here is apropos. There is very little talk of distortion in this analysis. Though society is described in such a way that we understand its mutability, we do not perceive (based on the description Kitch provides) the media as the primary factor in societal change and instead see them as mirrors held up to reflect those changes. More importantly, the point is that some things do not change much, and that such limited change is evident in the continuing oppression of certain groups within society, particularly women. That the media reflect that oppression is hence seen as a useful tool.

Yet this broad approach to understanding stereotypes directly confronts the second route often taken in the field, an approach that envisions stereotypes as *inaccurate* reflections on the whole and thus damaging or at the very least confining to some groups. Scholars taking this second route seem to be in agreement with the first that stereotypes are embedded in media products and can be detected. However, the means of detection might differ because of a different conceptual definition (rarely stated outright) of stereotypes. The implied conceptual definition used by this second group is of images that are incongruent with outside reality. Several of the studies published during the 1990s appear to take this tack rather than that mentioned directly above which saw stereotypes as adequate reflections of reality.

Lester (1994) is probably the best example of a scholar who believes that stereotypes are inaccurate reflections of reality. In his literature review, he cites several studies that support his view that stereotyping occurs when the media fail to show us the world as it really is. For example, he reiterates the findings of Martindale (1986) whose study of major newspapers concluded that they had begun to present black Americans more "realistically." Lester also cites Wheatley (1971) who did groundbreaking work on the relationship between numerical representations of different races in the mass media and actual demographic figures. Summarizing this issue, Lester states that it should be "reasonable to conclude that overall pictorial coverage of African-Americans should at least match the U.S. population" (p. 381). He then proceeds to examine media content to determine the accuracy of the media on this and other issues.

Entman (1994) shares Lester's concern for images of African Americans and makes it very clear that the crucial question he wishes to address is the way the media encourage or prevent accurate understanding of the conditions of that racial group. His analysis is perhaps more complex than Lester's, but the bedrock issues are very similar as he questions the ability of the media "to represent the reality of black America." (Entman, 1994, p. 509). Stereotyping, for him, is inaccurate reflection (though he claims images are often accurate at a superficial level) of a collection of people. For example, he is concerned that whites with limited contact with blacks "may assume those blacks who appear in TV news are representative and thus generalize from them" (p. 517). Certainly the underlying assumption is that on the whole blacks who appear in TV news are *not* representative, otherwise generalization would be appropriate. In addition, there appears to be an implication that accurate representation *is* possible.

Jolliffe and Catlett (1994) add a new twist to such discussion by framing their study around "demeaning content" (p. 800) in magazines. At times they speak as if stereotypes develop in readers' minds on the basis of "sexism in the media" (p. 800). But at other times they speak as if stereotypes exist in magazine content itself suggesting that it is possible to alter that content so as to "reflect fewer stereotypes" (p. 802). Such an assessment appears to be based on issues of accuracy or at least improper focus. For example, the authors cite earlier work that investigates whether or not women's professions are accurately reported. Or, on a related issue they address whether articles elaborate more on active roles and achievements of women in society, or matters of attire and relationship. Much of the focus of Jolliffe and Catlett is on hegemony, which is the "promulgation" of the ideologies of the ruling class. The implication appears to be that such a ruling class is able to structure the media in such a way as to present a false view of reality in regards to women's activities and achievements. Here the broad understanding of the notion of stereotype doesn't change drastically from that presented by Lester and Entman.

Three studies stand in contrast to these, however. Tan et al. (1997), Willnat et al. (1997), and Fujioka (1999) offer an alternative in regards to conceptualization and analysis. To start, these studies offer clear definition of the concept of stereotype itself. For example, Fujioka borrows a definition from Hamilton and Trolier (1986, p. 133) to describe stereotypes as "cognitive structures that contain the perceiver's knowledge, beliefs, and expectancies about some human group." Given such a definition—the other two studies provide similar ones—the emphasis is on the effects of long-term media exposure on perceptions. Measurement in all three studies is a result of questionnaires gauging general perceptions, not immediate response to individual media images. These authors sometimes veer into ideological discussions and occasionally move into positions close to that of our second broad path. Tan et al., for example, provide a thorough review of media images of Native Americans. They do claim that such images "convey stereotypes" (p. 267) and even describe Native Americans as being "stereotyped in movie roles" (p. 268). In addition, while accuracy does not seem to be as important to these authors as it was to some in earlier groupings, they do state that Native American stereotypes "are not entirely accurate" (p. 267). Given the questionnaire methodology utilized in the study (and the other two), however, the authors do not have to face the difficult task of determining exactly which media images of Native Americans are accurate and which are not. In fact, they don't even have to face the difficult task of determining which images are stereotypes.

The three remaining studies of the 1990s do face this issue and—judging by their means of dealing with it—don't fit neatly into any of the categories presented above. Those authors presented so far can be reasonably categorized as seeing media stereotypes as indicators of the conditions of the real world, inaccurate representations of certain groups, or cognitive processes engaged in by media consumers. Kilbourne (1990), Lafky et al. (1996), and Eaton (1997) do not offer a clear indication of where they fit in these categories.

Kilbourne (1990), for example, examines female stereotyping in advertising with clear attention to the ideological intentions thereof, as was explained above. His concern is that stereotypical images in the media might lessen opportunities for women in the business world. In expressing that concern, he does not take the route Kitch describes as the reflection hypothesis (suggesting that media images of women in business are an accurate reflection of real injustices against women in the business world). Neither does he take a position that suggests media depictions of women in the business world are inaccurate. His focus appears to solely be with the effects of those images. The interaction between the media and the real world is thus somewhat vague.

Likewise, Lafky et al. (1996) present a complex interrelationship between the media and social reality in which it is difficult to determine whether their view of stereotypes is predicated on falsehood. Even so, they plainly state that "advertisers often present certain social ideals rather than life as it is" (p. 380). They then refer to stereotypical images as "idealized." The orientation seems to be toward a view that stereotypes do not reflect the real lives of their audience. Within their own article, the authors provide results of quasi-experimental study they implemented in order to determine how stereotypical images affect cognition. The method for answering this research question is to see if audiences subjected to images with varying degrees of stereotyping have differing perceptions of a "neutral" (p. 381) image. There is little discussion on exactly why a particular image is considered neutral—as opposed to nonstereotypical. In any case, given this way of categorizing images, we cannot easily place the study in either the reflection or inaccuracy camps.

This study shares a number of things in common with Eaton (1997). As with Lafky et al., Eaton is concerned about images of women. In addition, just as the former are concerned with the "negative effects of female stereotypes" (Lafky et al., 1996, p. 379), Eaton (p. 860) focuses on "women's traditional devaluation" through the media. A final similarity is that Eaton does not state specifically whether accuracy is a fundamental issue in the discussion of stereotypes. The thesis of the article is that newer television networks (Fox, UPN, and WB) present stereotypes of women because such stereotypes are more likely to draw young male viewers. As mentioned earlier, the stereotypes with which Eaton is concerned include provocative and attractive appearance. Eaton's readers might understand when she explains the logic that leads new networks to seek young male viewers. They might even understand the logic of using images of attractive young women characters to do so—though this might be stereotyping young men. Where they might find difficulty is in Eaton's next logical progression where she claims that such images of attractive young women are "stereotypes." As with several other studies listed in this section, this leaves us with little clarity as to exactly what a stereotype is (or is not). How researchers go about deciding when they have encountered a stereotype is the subject of the next section.

STEREOTYPE DETECTION

At this point, a brief summary of some key issues may be in order. Though researchers appear averse to offering concrete definitions of "stereotypes," many of them do propose that stereotypes are prevalent in the media and thus the researchers have chosen to work within several broad conceptualizations. Among these conceptualizations are stereotypes as accurate reflections of an unpleasant world, stereotypes as inaccurate reflections, and stereotypes as causes of particular effects in audiences (without a clear indication of the nature of stereotypes). The first two approaches are clearly contradictory and may cause very different interpretations as to whether a particular image is or is not a stereotype. As noted above, the third approach is not necessarily dependent on detecting stereotypes. Our immediate concern is with how we recognize a stereotype when we see one if we adhere to the apparent definitions provided within our first two approaches.

Though no empirical research done from the "stereotypes as reflection" approach appeared in *JMCQ* during the 1990s, Kitch (1997) lists numerous earlier studies performed from that perspective. She honors the approach as the first of four which have been useful in understanding women's images in the media and suggests that it "continues to make important contributions to media history" (p. 486). The reader should recall that it does so by examining media images to better understand the "real-life values and options" of a particular time period (p. 478).

The difficulty posed by this position comes in examining a particular image and claiming it to be a stereotype. Even so, Kitch (1997) seems to see no problem here, saying not only that media stereotypes exist, but they are "widely recognized by audiences, who see them as some kind of reference to a day-to-day 'reality'" (p. 485). The implication throughout the author's writing is that the reference process of which she speaks is clear and true. That is, the audience can see in media images the real stuff of their daily lives.

Yet such an approach could make *all* media images stereotypes and the term "stereotype" comes to mean *any* media image of a person to which members of the audience can relate. At some level, images refer clearly to the real existence of people who consume them. After all, one may argue that every character ever appearing in photographs, film, or television has *some* common connection with *some* member of the audience. Moreover, the approach of which we are speaking places the declaration of "stereotype" in the judgment of individual viewers. Should they see themselves in a category represented by a character, the character is a stereotype. Only in the unthinkable situation where no member of the audience can see him/herself in a similar category to the character, does stereotyping not take place. This is why Kitch sees categories of characters to be of utmost importance.

The logical sequitur—demonstrated in her article—is to give examples of such categorization by the media. She cites Wald (1975) to demonstrate that women from the mid 1800s to the mid 1900s were working girls, American beauties, or good/bad girls. Likewise, she uses Haskell (1974) to show that 20th century women are vamps, virgins, sex goddesses, and mother/Madonna figures. What Kitch appears to be claiming is that audience members recognize these categorizations. What she does not address directly is whether these categories appear to have any direct connection to audience members' real lives. Do the categories that appear to arise out of media images also arise out of the quotidian realities of audiences? Do these categories accurately reflect the categories in which real people exist?

Kitch appears to claim that they do, and in stating such is put in the odd position mentioned earlier that all media images are stereotypes. The crucial factor that forces the position is accuracy. Most of the other authors discussed above claim that stereotypes are images that are inaccurate. Kitch never makes a claim that a particular image or even category does not relate to the world outside the media. Therefore, if we see a person placed in any role within the media, we can assume that the image is accurate and (oddly) a stereotype.

This is directly contradictory to some of the most common stereotype research published in *JMCQ*. More often, *inaccuracy* is part of the very definition (albeit an implicit one) of stereotype. Yet this does not eliminate problems of detection. In fact, such a position might even cause more difficulties than the route Kitch took. Her route through almost circular logic eliminates the issue in the end. In contrast, the inaccuracy approach gets bogged down in matters of reality and measurability.

Much of this difficulty comes to light from recent work in psychology published by Ottati and Lee (1995). Their basic contention is that "stereotypes contain an accuracy component" (p. 40). That is, the accuracy of many claims made about groups can be measured. Of course, this assumes two things. One is that researchers believe in the concept of accuracy. Many researchers who study stereotypes in the media appear to do so. The other assumption is that members of groups can be reasonably determined. In other words, we can adequately define what it means to be black or white, Democrat or Republican. Media stereotype scholars also appear to embrace this assumption. Recall that Tan et al. (1997) provide research on media portrayal of Native Americans. Lester (1994) similarly writes of African Americans as a verifiable racial group in the media.

Once we agree to such assumptions, we can examine media images and note what they are saying about particular groups. This is a common practice among stereotype researchers. For example, a typical method—as described earlier—is to investigate how media portray women. A typical finding is that media portray women as homemakers. A typical claim is that the researcher conducting the study has detected a stereotype. We can note such claims in Kilbourne (1990), Jolliffe and Catlett (1994), and Lafky et al. (1996). Given everything assumed to this point, however, such conclusions might be premature. How can researchers make a claim that a picture of a woman doing housework is a stereotype? Kitch is able to do so because the image is accurate, yet unpleasant to her. For those scholars who claim that the process of stereotyping is dependent on inaccuracy, more work is necessary. The scholar who sees stereotypes as inaccurate needs to empirically assess the accuracy of the image.

The point such scholars are making is that in some way the image in the medium is not a reliable indicator of the way things are in the real world. Entman (1994) would prefer to state that the *images* in the media—as a whole—are not reliable indicators, but the key issue is a correspondence to outside reality. The image either corresponds or not. When a stereotype is detected, the claim is that the image does not correspond. Yet very little work is typically done to verify the level of correspondence. Perhaps the reason for this lacuna in scholarship is that such a process is very cumbersome, requiring clear assessment of the unit of analysis in two different locations. That is, first an analysis must be made of the reality of the outside world. Second, an analysis must be made to assess the nature of the mediated world. Some of the studies previously mentioned have done assessment in only one of these locations. Some have done such in neither.

Before addressing these two cases individually, we should note that all the "inaccuracy" researchers assume a real world of which the media world is not an accurate reflection. That is, they clearly manifest an empiricist epistemology. As Lester (1994, p. 383) states "If African-Americans have been under-represented or used in stereotypical portrayals, the pictorial evidence will show those facts clearly." The question being addressed presently is whether these empirically oriented scholars do the empirical work necessary to test if their judgement is correct. While there are many situations in which such a test would be difficult or impossible, there are many others in which it would not be. The reasons for this were foreshadowed earlier. Some character groups are hard to distinguish, and some characteristics ascribed to different groups are equally immeasurable. But, as Ottati and Lee (1995) point out, "In some cases it is possible to compare stereotypic perceptions of a social group with more objective indicators of that group's characteristics" (p. 37). Stated differently, a researcher has the potential to gather factual data about a social group's characteristics in the real world (e.g., its tendency to commit certain crimes, its tendency to fill certain occupational roles) and can thus judge whether an image of that group is accurate or not. In such a manner, Jussim et al. (1995) raise the uncomfortable question of whether certain beliefs about groups that have experienced discrimination in the past can legitimately be labeled a stereotype. For example, is the belief that American Jews are wealthier than other ethnic groups a stereotype? Or, is the belief that the majority of people on welfare are ethnic minorities a stereotype? As Jussim et al. point out, from a standpoint that relates stereotyping to accuracy, such beliefs could plausibly be defined as nonstereotypical. That is, *if* statistics in the real world show Jews to be wealthier than other groups, a belief (or portrayal) that they are so cannot be categorized as a stereotype. While scholars may not enjoy speaking in such terms, and they realize that even seemingly-objective data can be twisted by hateful citizens, conceptual clarity demands further discussion of this issue.

The first task for accuracy stereotype researchers is thus to bring statistical evidence from the real world to bear on their work. But this task is often rejected. For example, Eaton (1997) launches into a study of television stereotyping of women and discovers that some women on television are portrayed as dressing provocatively, as being fit, and as having blonde hair. The researcher claims to be able to declare such characters more stereotypical than other women presented with other features. But nowhere does she examine real world data on the percentage of women who dress provocatively, are fit, or have blonde hair. Likewise, Jolliffe and Catlett (1995) use a number of indicators to declare magazines often stereotype women as "family servants." Certainly the authors realize that some women *are* family servants in the real world.

Until we know the extent to which real women in the real world fill such a role, how can we declare that a portrayal in a magazine photo is a stereotype?

This is not to say that analysis in the real world is executed simply. As Ottati and Lee suggested earlier, the simplicity varies depending on the clarity and objectivity of the concept provided. In some cases objective indicators of a group's characteristics in the real world will be easily gathered and cause little dispute. For example, a researcher could feasibly determine what percentage of corporations of a predetermined size are headed by women. A researcher could similarly discern what percentage of college professors are Latino. Comparing such figures with media images is indispensable if we take an accuracy position in regards to media stereotypes.

Herein lies the second prescription provided above. After determining the characteristics of the real world, the researcher next needs to look not at individual media images, but at a collection of media images. Just as finding one Latino college professor at one university tells us little about the relationship between race and employment in higher education, finding one woman television character portrayed as a "family servant" tells us little about how the media portray women. What is needed is a thorough analysis of a medium. Stated bluntly, a researcher may not look at a specific media image—by itself—and claim it to be a stereotype. If asserting that by definition a stereotype is an inaccurate image of the world, the researcher needs to know the characteristics of the world and then know the relationship between the particular image she is studying and others within which it is found.

This is not to say that one need always study an entire medium (e.g., television) or even a channel within a medium (e.g. NBC). But such studies seem most forceful given all that has been said thus far. The point to be noted is that a single advertisement in *Newsweek* showing a woman doing housework does not necessarily indicate that women are stereotyped in the media any more than finding one woman astro-physicist in Walla Walla tells us that women have achieved equal employment opportunities in the sciences. If the issue is how accurately media reflect the real world, arguments seem more forceful when using the largest unit of analysis possible. Certainly if some women in the real world do housework, some women in the media will be shown to do so also. If researchers claim that a particular advertisement stereotypes a group, they have said little. If researchers claim that a particular magazine consistently does so by virtue of the fact it does not accurately reflect the reality of the outside world, they say more. If they claim that the ten most circulated magazines in the country do so, they say even more, by demonstrating that a broad pattern of unreality exists in a medium.

Some researchers have properly conceptualized this and realize the importance of broad analysis of imagery. For example, in spite of the shortcomings listed earlier, Jolliffe and Catlett (1994) and Eaton (1997) examine large channels within different media to assess the stereotyping therein. The former examine portrayals in seven major women's magazines. The latter examines five broadcast television networks. In doing so, they propose to give a good indication of the overall "world" that people perceive in that message or medium.

Yet without having an equally reliable picture of the real world to which this mediated world is putatively compared, we can say little. Remarkably, few studies do a thorough analysis of a medium or group of products within a particular medium, and then compare the results of that analysis to data gathered from the real world. The latter need not be done by the mass communication researcher, since much is readily available. But it must be called forth if a claim of stereotyping is to have any credibility. Though often given great respect by the academy and even the public, claims that a particular representation in the media is a stereotype are illusory. That is, if the researcher is working from a perspective that uses accuracy as an indicator of stereotyping, the claim is the result of conceptual legerdemain. More than this, claims of this sort often put media practitioners in a terrible bind from which escape is almost impossible. This issue, along with several other implications is the point of the next discussion.

WHY THE METHODS OF STEREOTYPE SCHOLARSHIP MATTER

Given all that has been noted thus far, several implications follow. Perhaps the easiest way to think of these implications is from a traditional model of communication. That is, clarification can be gained by looking at implications for the study of creators of media images, study of media images themselves, and studies of audiences and effects.

At the level of media creators, much work can be done on the processes by which writers, producers, directors, editors, and others conceptualize membership in different groups and their knowledge—or lack of knowledge—of the stereotypical nature of their products. As noted above, many media practitioners have probably been accused of producing stereotypical images on more than one occasion. Nowhere in *JMCQ* during the last ten years has research been done to examine the extent to which these people anticipate potential stereotyping (or at least charges of such) when creating images. Scholars sometimes do admirable work investigating the relationship between producers and their products (e.g., Gonzalez, 1990; Lauzen & Dozier, 1999) but rarely do the in depth analysis of producers themselves and the decisions that they make. A rare exception might be the scholarship of Graber (1994) who has done interesting work looking into the structural elements and thought patterns that constrain creative agents. A large percentage of those working in the media are college educated and are perhaps sympathetic to minority populations in their communities. If stereotyping is as prevalent as scholarly writing seems to indicate it is, then the sources of such are worthy of attention. Lafky et al. (1996) explain that advertisements are "created through presentations of idealized, stereotypical portrayals of individuals" (p. 380). In this and other media, a legitimate area of investigation should be the factors that lead to such portrayals. Do the creative people who produce advertisements hold views that are more stereotypical than do average citizens? Do those who pay for the advertisements have expectations of the ads that would include images deemed stereotypical by researchers? Are there aesthetic factors that make ads appear stereotypical regardless of the views of those involved? All of these questions are worthy of attention.

In the mean time, those who work in the media are under fire. In fact, media practitioners might at times be put in a double bind by pressures about stereotyping. With recent attempts to recognize—and even celebrate—multiculturalism, many in the media look for representative images of certain groups to share with their audiences. If the group is to have an identity (as a group), then certain key characteristics will be highlighted. As Vinacke (1956) points out, it is outlandish to think that members of cultural groups do not share certain characteristics that differentiate them from other cultural groups. Creators of media images likely look for such characteristics precisely *because* they help us to differentiate groups. Of course, given a loose definition of stereotypes, these images fit that category. But, if instead media creators look so diligently for varied images of a group, the group blends into the whole, losing its cultural identity. Ottati and Lee (1995) state it in plainly. "By neglecting the unique characteristics of minority groups, we may promote a social climate that forces minority group members to be unwillingly assimilated into the mainstream culture" (p. 48). Research thus needs to be done on how creative agents in the media make choices as to which characteristics to highlight and their understanding of the implications of such choices. Certainly many authors cited here feel that media practitioners purposely choose negative images as the defining characteristics, but little empirical evidence has been provided to support this claim. What is needed is research that differentiates between purposeful stereotyping for political power and stereotyping that is done in the interest of showing true distinctions that exist between cultural groups.

Along these lines, one group of scholars cited above implies that stereotypes are "simplistic images that ignore the complexities of modern lives" (Lafky et al., 1996, p. 380). Similarly, another research team (Tan et al., 1997) states "Stereotypes are overgeneralizations that constitute a denial of individual differences among racial and other 'out' groups" (p. 265). The ignorance and denial of which the researchers speak is quite possible, but is not an area—related to media producers, at least—that the authors empirically verify. We might *assume* that producers of television programs ignore or deny individual differences between "out" groups and that they thus think group members are all alike, but we do not know this for a fact. Contrarily, research on stereotyping in the field of psychology has found little evidence to support the claim that these scholars are making. Ignoring or denying individual differences is concomitant to assuming pure group homogeneity. Yet, there is no empirical evidence that people exist who think ALL members of a certain group exhibit particular characteristics (Jussim, McCauley, and Lee, 1995, p. 7). No empirical evidence suggests that those who hold views considered stereotypical believe those views to be absolutely true for all members of a group. In other words, researchers who have studied people who hold stereotypical views of certain groups (e.g., that Germans are efficient) have not found that such individuals deny empirical exceptions (e.g., *all* Germans are efficient). Instead, those who hold stereotypes use them as indicators of tendencies (e.g., that *most* Germans are efficient).

Perhaps media practitioners operate in a similar fashion. If so, the next issue of importance is how those perceived tendencies manifest themselves in media products. This is a second area where implications are evident. Clearly one conclusion from the main section of this paper is that the overall accuracy of media images is rarely measured in stereotype research and that if serious discussion of media stereotyping is to take place, such measurement is requisite. If media practitioners hold views of group characteristics and those views make themselves known in advertisements, news stories, films, etc., then researchers should endeavor to measure the accuracy of the products that media practitioners create. As noted earlier, assessments of media accuracy will not be simple yes/no declarations, but will be statements as to the level of correspondence to an outside reality. Groups are not completely homogeneous in the real world. Neither has any research shown *portrayal* of any group on television to be homogeneous. Hence statements as to whether the media are engaged in stereotyping will be based on the difference in levels of certain group characteristics in the real world and the corresponding level of that group characteristic in the media-portrayed group. Moreover, this limits discussion of stereotyping to characteristics which can be accurately measured. The case cited earlier (whether or not Germans are portrayed as efficient when characterized in television shows) might not be proper subject matter for stereotype research. At least, it is not proper subject matter if accuracy is an important criterion since measurement of "efficiency" might be difficult. Other examples of group portrayal, however, become much less challenging. Researchers can—within acceptable limits—determine the percentage of women who are full-time homemakers, or the percentage of Pentecostal Christians who commit property crimes, or the percentage of Asians who are medical doctors. Granted, some researchers will not find these questions interesting and prefer not to engage in this scholarship. Others may find this regimen confining. Even so, when accuracy is a component in the conceptualization of stereotyping, such confinement seems appropriate when studying media products themselves.

What becomes evident from this discussion, though, is that knowledge of reflection of reality is not in itself enough. Given the apparent telic nature of those who study stereotypes and the mass media, whether a particular image is realistic may not be the issue of interest. Implicit in much stereotype research is dissatisfaction with the negative nature of many portrayals. Yet the relationship between the positive/negative aspects of images and their stereotypicality is never directly addressed. Fujioka (1999), for example, claims that stereotypes "are not necessarily negative" (p. 53) but can be "used" in harmful ways by "the dominant group." Tan et al. (1997) echo this in stating that stereotypes "tend" to be negative. Yet in spite of these pronouncements on the potential for positive stereotypes, none of the studies conducted for *JMCQ* during the 1990s had as a primary research goal to detect positive stereotypes in the media.

As a specific reflection of this, not one scholar attempted to discern what percentage of stereotypes of a particular group within a particular media product or channel were positive. If stereotypes are conceptualized in a way that does not include accuracy, there are four possible forms of stereotypes. Those are: accurate/positive, accurate/negative, inaccurate/positive, and inaccurate/negative. As most authors cited in this essay intimate a definition of stereotyping that depends on inaccuracy, stereotypes are more limited in scope. We can assume them to be either inaccurate/positive or inaccurate/negative portrayals. Oddly, at the level of analyzing media messages in and of themselves, no attention is paid—explicitly, at least—to the former. That is, media stereotypes are either intimated to be negative, or their degree of negativeness is ignored. Four studies in particular (Lester, 1994; Entman, 1994; Jolliffe and Catlett, 1994; Eaton, 1997) would fall under the methodological rubric of content analysis. Nowhere in any of the four is a distinction made between a positive or negative stereotype. Possibly the authors wish to leave that distinction up to the reader of the study. More likely, the authors presume the bigger issue to be the effects of stereotypes, and thus consider that both positive and negative portrayals can be used for ideological gain by dominant groups.

This transitions into the next area of implications, implications for the study of audiences of stereotypes. Those studies that attempt to understand audience effects should also have some understanding of media content. A good example of a current *lack* of understanding is the potential positive nature of possibly stereotypical images. The studies that have—placed in contrast to the content analyses listed above—consistently categorized stereotypes as positive or negative are studies that have examined the relationship between stereotypes and audiences. Three such studies (Tan et al., 1997; Willnat et al., 1997; and Fujioka, 1999) use survey data in an attempt to understand the relationship between media consumption and stereotypical views of target groups. In each of these studies, clear recognition is given to the fact that the images people have of social/cultural groups can be positive or negative. However, since these studies use survey methods exclusively to gather data, they offer no concrete evidence of the positive/negative (or even stereotypical/nonstereotypical) nature of the media images the audiences are consuming.

But these scholars do deserve some support for their apparent desire to be take a broad-based approach to studying media stereotypes and their effects. Given the complexity of the issues involved in the field, this is commendable and stands in contrast to quasi-experimental designs such as that administered by Lafky et al. (1996). In their study of advertising stereotypes, high school students were randomly assigned to two groups for purposes of investigating gender socialization. One group was exposed to a series of photographs the researchers deemed stereotypical, a second group was exposed to a series deemed nonstereotypical. Some questions have already been raised as to the looseness in definition of these terms. In regards to audience effects, another issue arises. As noted earlier, the authors suggest that advertising works "through the use of simplistic images that ignore the complexities of modern lives" (Lafky et al., 1996, p. 380). Though the question was raised earlier as to whether any creators—or in this case audiences—completely ignore complexity when creating (or exposed to) stereotypes, very likely individuals do *lessen* their sense of complexity when doing so. This is not out of step with Lippmann's original conception of stereotypes and suggests a key area for future research.

However, the means by which Lafky et al. are attempting to study this putative problem, is symptomatic of the problem itself. They severely lessen the complexity of women's advertisements for each of the two groups. One group sees a series of images of women in the home. One group sees a series of images of women outside the home. In the complex world in which we live, women are commonly seen in both settings. In most any mainstream commercial media product, women are also seen in both settings (to varying degrees). To set up an artificial quasi-experimental design in which this complexity is removed would seem to be of little value.

With this in minds, we can perhaps say that the biggest implication in any suggestion for a more careful consideration of the nature of stereotyping is the possible ill-intended effects of poorly conceptualized scholarship. Though they can only speculated, their consideration seems appropriate here. In speaking of stereotype research as a whole (not limited to the media), one group of scholars recently noted that "the preponderance of scholarly theory and research on stereotypes assumes that they are bad and inaccurate." (Jussim et al., 1995, p.3). This certainly seems to be the case in mass communication research. As was noted earlier, should the field continue to work within the confines of this description, much refinement needs to be made of current methods.

Even so, there are wider socio-political ramifications that should also be considered. The claim that all stereotypes are inaccurate leads to misguided policy applications. As Jussim, McCauley, and Lee (1995, p. 19) point out, recognizing stereotypes is important in recognizing distinguishable group differences. And, recognizing distinguishable group differences is an important step in assisting various groups within society accept and adjust to those group differences. To ignore such differences in the media is to suggest that they don't exist and are not a factor in inter-group dynamics. Jussim, McCauley, and Lee rightfully suggest that such misguided notions can lead to catastrophe if we follow the advice of social theorists such as

Amir (1969) who recommend direct interaction between groups as a way of developing harmony. If those groups that do interact begin such interaction with little or no knowledge of *real* cultural differences, those differences might be significant reasons for conflict. Some of the mass communication scholars cited above seem vaguely aware of this. Tan et al. (1997), for example, state that for Native Americans, obtaining wealth is not as highly valued as are other possible uses of time. At the same time the researchers seem to claim that images that show Native Americans as not working hard for material success are stereotypes. But such images do appear to have a grain of truth. And, as Native Americans engage with other cultures, that gain of truth could be of great value. As Ottati and Lee (1995) explain the situation:

> Finally, and most important, we believe that the study of accuracy in social stereotyping can enhance awareness of multiculturalism and, as such, reduce an ethnocentric social perspective. Stereotypes can accurately reflect real differences and identities between cultures or social groups. Accepting these cultural differences and identities may promote greater understanding among cultures. Furthermore, the recognition of real cultural differences may further enable us to understand and resolve realistic conflicts among groups. Only when we understand intergroup differences objectively and accurately can we change or minimize intergroup conflict. (p. 51)

This is not to say that nobody in mass communication scholarship recognizes this. Willnat et al. (1997) state boldly that "pre-established expectations about members of other groups can simplify cross-cultural interactions and assist individuals in maintaining a positive sense of self-esteem deriving from their group memberships" (p. 740). But the *preponderance* of research listed here seems to work on an assumption. That assumption seems to be that stereotypes are inaccurate and negative images that are tools of oppression.

In summary, such an assumption might serve some purpose to demonstrate that that the mass media *can* serve as tools of powerful groups for the purpose of attacking those who might challenge their rule. Very few readers are unaware of this possibility. What we as a community of scholars are apparently *unaware* of are the ways in which the mass media demonstrate real differences between cultural groups. Admittedly, those differences are often the product of history and geography, but the zeitgeist seems to indicate that we do not wish these differences to disappear altogether. The call of our times is for diversity. The challenge facing mass media scholars is to write about stereotyping in a way that recognizes the difference between purposeful attempts by one culture to gain power over another and accurate description of cultural differences that we may wish to sustain is we desire to live in a world full of color.

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Modeling Information Seeking, Exposure and Attention in an Expanded Theory of Reasoned Action.

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Modeling Information Seeking, Exposure and Attention in an Expanded Theory of Reasoned Action.

ABSTRACT

This article examines the use of communication variables in research based on Ajzen and Fishbein's Theory or Reasoned Action (TRA) and Ajzen's Theory of Planned Behavior (TPB). The literature review shows that a significant amount of such work has included communication and information variables, but perhaps not in a manner designed to purposefully elaborate the function of communication and information in these theories. In fact, a recent meta-analysis of the TRA-TPB literatures identifies a half-dozen variables that function significantly in the TRA-TPB, none of which involve communication or information. Yet, one of the theory's original authors implicitly includes the role of communication by pointing out that people "take account of information" as they form behavioral intentions (Ajzen, 1988, p. 117). Using data from a survey of attitudes and behaviors involving water conservation in the arid West, this article explicitly examines information seeking, exposure, and attention as they function in the Theory of Reasoned Action. Using hierarchical regression and structural equation modeling, the results demonstrate that information seeking, exposure and attention are unique entities and that they together perform a significant function alongside attitude-toward-act and social norms in the prediction of behavioral intention. The conclusion considers how communication theory and the TRA-TPB could both benefit from a more purposeful examination of the place for processes and effects of communication in this tradition of research.

Communication researchers seem to generally accept that under appropriate circumstances Ajzen and Fishbein's (1980) Theory of Reasoned Action (or its more recent counterpart, Planned Behavior) is amenable to the inclusion of variables involving information. An assortment of published research articles—reporting on both observational and experimental data—associate a variety of information and communication variables with the Theory of Reasoned Action (TRA). For example, Griffin, Neuwirth, and Dunwoody (1995) use the TRA to consider the effect of health risk messages. Griffin, Dunwoody, and Neuwirth (1999) also propose an expansion of the TRA to accommodate information processing factors. Additionally, Stewart and Roach (1998) examine argumentiveness as a behavioral intention, and Jeffres, Dobos, and Sweeney (1987) include communication effects in a TRA model of community commitment. Health communication has made use of the TRA frequently in the context of campaign evaluation, incorporating communication variables to examine campaigns on, for example, condom use (Greene, Hale, & Rubin, 1997; Sutton, McVey, & Glanz, 1999), smoking cessation (Babrow, Black, & Tiffany, 1990), or teen alcohol use (Rise & Wilhelmsen, 1998).

The interest in including information or communication variables in studies evoking the TRA is not limited to communication circles. Many published articles in the field of social psychology also do so (with recognition that these literatures certainly overlap). A number of authors published in these journals use the TRA to look at persuasive message effects in a variety of contexts, including career choice (Strader & Katz, 1990), speeding (Parker, Stradling, & Manstead, 1996), adolescent body shape and self-esteem (Conner, Martin, Silverdale, & Grogan, 1997), or attitude toward nuclear plants (Showers & Shrigley, 1995). Additionally, information effects have been included in TRA studies looking at voting behavior (Singh, Leong, Tan, & Wong, 1995), computer use (Pancer, George, & Gebotys, 1992), and organizational innovation (Monge, Cozzens, & Contractor, 1992). Other studies as well have incorporated communication and information variables into the TRA. In fact, as many of these studies report, one of the theory's original authors implicitly includes information by pointing out that people "take account of information" as they form behavioral intentions (Ajzen, 1988, p. 117).

So the role of information in the Theory of Reasoned Action is a foregone conclusion? Hardly. As suggested above, most studies have made use of the TRA as a convenient (and appropriate) vehicle for examining information effects on some target behavior (e.g., health behavior), or to consider the place of information effects in some related area of concern (e.g., community commitment). But surprisingly little has been done to explicitly test the function of information in the framework of the TRA. As Griffin and coworkers also observe: "In fact, relatively few studies overall that have tested the Fishbein-Ajzen theory have measured or manipulated communication variables, even though the theory lends itself to examination and assessments of communication processes and effects . . ." (Griffin, Neuwirth, & Dunwoody, 1995, p. 205). In this article, such an effort is made.

Reasoned Action and Beyond

The work of Ajzen and Fishbein that came to be formulated as the Theory of Reasoned Action first appeared over 30 years ago (Fishbein, 1967). Numerous published accounts describe the development of this tradition of attitude-behavior research (e.g., Eagly & Chaiken, 1993, p. 168-218). The conceptual hallmarks of the work are the inclusion of an intervening variable (behavioral intention) between attitude and behavior, and the parsimonious prediction of behavioral intention based on attitudes and norms specific to the behavior in question. Attitudes and social norms are captured in an expectancy-value approach, yielding the now very well known expressions:

$BI = (A_{act})w_1 + (SN)w_2$ where BI = behavioral intention to perform a specific behavior, A_{act} = the individual's evaluative attitude toward performing the specified behavior, and SN = the individual's subjective normative belief with respect to how a generalized reference group would feel about him performing the behavior.

$A_{act} = \Sigma B_i e_i$ where B_i = the belief that performing a specific behavior will lead to a particular consequence, e_i = the evaluation of the particular consequences, ${}_i$ = the index of the salient consequences.

$SN = \Sigma NB_i Mc_i$ where NB_i = the normative belief of the individual as to how a particular reference group would feel about his performing a specified behavior, Mc_i = the individual's motivation to comply with the reference group, and ${}_i$ = the index of the relevant reference groups.

Originally designed for application to circumstances in which relatively simple behaviors are under voluntary control, the theory underwent a significant revision to function under circumstances in which action is not entirely voluntary, but rather is subject to the actor successfully executing one or more behaviors of varying difficulty (e.g., weight loss). The inclusion of the third antecedent variable—perceived behavioral control—transformed the TRA into the Theory of Planned Behavior (TPB) (Ajzen, 1985, 1987, 1988, 1991).

Both models have enjoyed considerable application, and have been well supported empirically. Meta-analyses of the TPB have reported respectable and consistent effect sizes, with 41% of intention and 34% of behavior typically accounted for (Godin & Kok, 1996; Sutton, 1998).

For researchers interested in building theory, perhaps one of the more seductive aspects of the TRA lies in its sufficiency claim. The idea that two or three variables can account for the lion's share of variance in behavioral intention—and subsequent behavior—effectively throws down the gauntlet for researchers to search for other powerful antecedents. Ajzen even makes this challenge explicit:

> The theory of planned behavior is, in principle, open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of the variance in intention or behavior after the theory's current variables have been taken into account. (Ajzen, 1991, p. 199)

Researchers have taken up this challenge, and a virtual cottage industry has been thriving in the search for viable expansions to the TRA-TPB. This effort has now reached the point at which meta-analytic efforts are being made to review progress. Of particular note is an article by Conner and Armitage (1998) in which past work on the expansion of the TRA-TPB is reviewed. The authors evaluate 36 published articles that provide evidence to support the addition of six variables: belief salience, past behavior, self-efficacy, moral norms, self-identity, and affective beliefs. They conclude that "in each case there appears to be growing empirical evidence to support [these additions] to the TPB and some understanding of the processes by which they may be related to other TPB variables, intentions, and behavior" (Conner & Armitage, 1998, p. 1429). Yet despite an apparently widely-held opinion that information matters in the TRA-TPB, information variables do not appear in this review. Based on the literature described previously, this is held this to be an oversight. But it is also held that this may be a tactical error on the part of communication researchers. Much of our effort with the TRA-TPB, as illustrated above, has been aimed at illuminating communication effects rather than integrating information variables explicitly into the theory.

Which information variables should be integrated into the TRA-TPB? To demonstrate the centrality of information in the model an effort should be made to first examine some of the most basic communication variables: information seeking, exposure, and attention. Information seeking has been an extensively investigated variable in communication. Work over the past decade has invoked information seeking in a number of applied and theoretical arenas, including: organizational communication (Miller, 1996; Rahim, 1990; Teboul, 1995, 1994; Casey, Miller, & Johnson, 1997; Mignerey, Rubin, & Gorden, 1995; Myers, 1998), health communication (Johnson & Meischke, 1993; Freimuth, Hammond, Edgar, & Monahan, 1990; Cegala, Coleman, & Turner, 1998), uncertainty theory (Kellerman and Reynolds, 1990; Wheeless & Williamson, 1992; Douglas, 1994), cultivation theory (Gandy & Baron, 1998), voting behavior (Lowden, Andersen, Dozier, & Lauzen, 1994), and fear appeals (Roser & Thompson, 1995). Exposure and attention also appear in volumes of published research (almost reflexively in many cases), and work specifically on the relation between the two concepts has demonstrated that exposure and attention are unique entities (Drew & Weaver, 1990; McLeod & Kosicki, 1986; Chaffee & Schleuder, 1986; McLeod & McDonald, 1985; Chaffee & Choe, 1979). Subsequent research using exposure and attention has demonstrated the effectiveness of including both variables in analyses (e.g., Weaver & Drew, 1993, 1995).

It seems true prima facie that information seeking, exposure and attention are fundamental communication variables. We will test the model to be proposed in the context if the environmental issue of water conservation.

Context: Intention to Conserve Water

Interestingly, water conservation per se has been the subject of relatively little social psychological research, at least in comparison to efforts on energy conservation, for example (Seligman & Finegan, 1990). A few previous studies have evoked the Theory of Reasoned Action to study water conservation. Kantola, Syme and Campbell (1982) account for 21% of the variance in water conservation behavior by looking at attitudes toward conserving and subjective norms, with subjective norms being the stronger of the two. Likewise, Seligman, Hall, and Finegan (1983) account for 38% of water conservation behavior through attitude toward the act.

Other studies have found that water conservation is best achieved through voluntary measures, the acceptance of which are predicted more strongly by idealistic motives than by economic motives (Hamilton, 1983). And water conservation has been conceptualized as two factors: the difficulty of conservation and whether the act of conserving is expressed in public or in private (Seligman & Finegan, 1990).

The role of information on water conservation attitudes and behaviors has been considered. Geller, Erickson, and Buttram (1983) suggest that information and education may be relatively ineffective for promoting water conservation because, they argue, most people do not perceive water to be a significant issue except under conditions of drought. On the other hand, Hamilton (1985) takes this argument and turns it, stating that "because knowledge about water use is both generally low and related to conservation behavior, informational feedback may be a particularly effective strategy for increasing conservation" (1985, p. 315). And studies have found information effects on water conservation attitudes and behaviors. For example, Baumann, Opitz, and Egly (1992) report on a water conservation communication campaign in southern California. They find significant increases in reported conservation efforts, improved attitudes about the importance of water conservation, and an improvement in the accuracy of knowledge about individual water consumption—all associated with campaign information effects. And Moore, Murphy and Watson (1994) examine water conservation attitudes, intentions and behaviors among teachers, students and parents in Australia. They find significantly positive changes in attitudes, knowledge, behavioral intention and reported behavior—all linked most strongly to information received through television.

Methodological issues have been considered by some studies of water conservation attitudes. Syme, Seligman and Thomas (1990) argue that some of the weak correlations seen between attitudes and conservation behaviors can be attributed to research being conducted under conditions of drought, which is "likely to produce a narrowing of the range of expressed attitudes about water use, especially toward excessive consumption, and perhaps even a consensus about the issue" (1991, p. 158). Other work on the question of seasonal timing of data collection in this context shows that survey respondents do present more positive attitudes toward water conservation and less variance in those attitudes during dry periods, but in contrast to previous work they also show a stronger attitude-behavior correlation then (Trumbo, Markee, O'Keefe, & Park, 1999). This may relate to work of Chaffee and Roser (1986), who found that greater involvement with an issue—as dry times would bring—can lead to higher correlations among knowledge, attitudes and behaviors concerning an issue.

The data to be analyzed in this article are drawn from a larger project examining attitudes and behaviors toward water conservation throughout the Truckee River Watershed in California and Nevada. Along its 140-mile course, the Truckee River flows out of Lake Tahoe, past the California tourist and lumber town of Truckee, and through the center of the rapidly growing metropolitan area of Reno-Sparks, Nevada. From there, a portion of the river is diverted by a canal system into a "make the desert bloom" agricultural project established in 1908, called the Newlands Project. This agricultural area supports several towns, the largest of which is Fallon, Nevada. Finally, the river follows its natural course to terminate in alkaline Pyramid Lake, which has been home since 1859 to the Pyramid Lake Paiute Indian Reservation. Pyramid Lake provided a sufficient fishery for the Paiute until lake levels began a precipitous drop in the early 1900s, shortly after the establishment of the Newlands diversion canal system. Today, the lake level is some 50 feet lower than it was at the turn of the century, with two fish on the endangered species list. Legal conflicts have been numerous among all parties dependent upon the river's water. Recently, agreements have been reached in which water rights have been transferred from the Newlands Project back to the Paiutes, and Reno-Sparks has made a commitment to improve water conservation by 10% (Jones, 1991; Voyles, 1997; Bremner, 1999).

Proposed Model

Earlier, the inclusion of information seeking, exposure and attention into the TRA-TPB was argued for. Additionally, the context of the larger study also argues for the inclusion of two other variables that have been previously evoked in expansions of the TRA-TPB.

The TRA-TPB traditionally takes no account of values—higher-order attitude structures that form early and are resistant to change. However, Conner and Armitage (1998) explore this in terms of "morals." They state that "Moral norms can . . . be defined as one's own socially determined and socially validated values attached to a particular behavior" (Conner and Armitage, 1998, p. 1442). They describe a number of studies that examine this concept as an addition to the TRA-TPB, including work of Cialdini, Kallgren, and Reno (1991), who conceptualize "personal norms."

> This notion of personal norm relates to the individual's own values involved in a certain behavior. In the case of some behaviors, these may be moral values; alternatively, these may be more closely related to an individual's self-identity. For example, in food choice, while an individual may not feel any moral obligation to consume healthy food, he or she may regard himself or herself as a "healthy eater," thereby having a set of values (e.g., not eating too much fried food) associated with the behavior. (Conner & Armitage, 1998, p. 1442-3)

In addition to the value-based work evaluated by Conner and Armitage, other researchers have included environmental values in studies of environmental behavior. Grob (1995) includes "personal philosophical values" with perceived control, environmental awareness, and emotions as predictors of membership in a "green drivers" association in Germany. Values were found to be the strongest predictor, accounting for 39% of variance in behavior. Other such studies examine recycling (Thogersen, 1996), values and gender (Stern, Dietz, & Kalof, 1993), a range of pro-environmental behaviors from recycling to voting (Karp, 1996), membership in environmental organizations (Thompson & Barton, 1994), and a set of 10 pro-environmental behaviors reported in the General Social Survey (Dietz, Stern, & Guagnano, 1998).

The challenge with values is that they tend not to be object-specific, but more general. While a number of the studies just mentioned do find a place for values in analyses of environmental behavior, many other authors have shown that object-general concepts such as values do not perform as well as object-specific concepts such as attitudes when formally using the TRA-TPB. For the case of environmental or conservation behaviors, such values may be especially germane because of their high social salience and the strength to which individuals hold (or do not hold) them. In any case, use of the TRA to examine the inclusion of environmental values will be a strict test.

For purposes of this study, the most fruitful line of research that can be applied to the capture of general environmental values involves the New Environmental Paradigm (NEP). In their original work on the NEP, Dunlap and Van Liere (1978) argue that there has been a long-standing Human Exemptionalist Paradigm emphasizing "our belief in abundance and progress, our devotion to growth and prosperity, our faith in science and technology, and our commitment to a laissez-faire economy, limited governmental planning and private property rights" (1978, p. 10). This world view, however, is being gradually displaced by the NEP. This new world-view recognizes an essential environmental-economic parity, the balance of nature, the dangers of unlimited growth and the importance of humans finding sustainable relationships within natural systems. The NEP, and its associated measurement device, have been utilized in a range of studies assessing scale reliability (Noe & Snow, 1990), behavioral prediction (Scott & Willits, 1994), attitudes toward wildlife (Edgell & Nowell, 1980), business attitudes (Shetzer, Stackman & Moore, 1991), authoritarianism (Schultz & Stone, 1994), and a range of other applications (Albrecht, Bultena, Hoiberg, & Nowak, 1982; Arcury, 1990; Caron, 1989; Geller & Lasley, 1985; Kuhn & Jackson, 1989). These studies "provide insight into the basic values and beliefs on which more specific environmental attitudes and actions are based and serve as aids in interpreting paradigmatic shifts across time" (Scott & Willits, 1994, p. 240). A subcomponent (described below) from the NEP scale will be used in this project to capture an indication of environmental values.

In addition to values, the context of the study strongly argues for the inclusion of past behavior. The inclusion of past behavior in the TRA-TPB has been an issue of some concern. Eagly and Chaiken examine a range of work incorporating past behavior and conclude that "The addition of past behavior to the model is eminently sensible from behaviorist perspectives which postulate that behavior is influenced by habit, or more generally, by various kinds of conditioned releasers or learned predispositions to respond that are not readily encompassed by the concepts of attitude and intention" (1993, p. 179). In such a model, which Eagly and Chaiken present, past behavior co-varies with attitudes and norms, and then predicts to both intention and behavior. Ajzen (1991) has argued that any influence of past behavior on intention or behavior should not be direct but rather should be transmitted through perceived behavioral control (in the TPB). Conner and Armitage (1998) argue that this proposition is not supported by the literature. They examine the correlations between past behavior and the other components of the TPB, looking at a total of almost 60 tests. The typical effect size for past behavior on perceived behavioral control is .13, while the effect size of past behavior on intention and behavior is .26 and .46, respectively. Further, they examine a number of studies reporting the independent effect of past behavior on intention and behavior, controlling for the effects of the TPB's standard components. On average, past behavior incremented intention by 7.2% and behavior by 13%.

But how to array past behavior, values, and information effects with attitudes and norms? This problem will be addressed using a stepped modeling approach. The starting models are depicted in Figure 1. The focus will be on the Theory of Reasoned Action rather than Planned Behavior (later analyses will describe what lead to the decision to exclude perceived behavioral control, or self-efficacy). First, the top model in Figure 1 is intended to examine the gross effects of information (seeking, exposure and attention combined) in relation to the other variables. The solid lines in the model represent hypotheses, the dashed lines represent research questions.

H1: In keeping with the TRA, attitudes and norms will co-vary and both independently predict behavioral intention.

H2: Because people must "take account of information" as they form behavioral intentions (Ajzen, 1988, p. 117), information should exert significant independent effects on attitudes, norms, and behavioral intention.

RQ1: It is assumed that since values are held to be relatively enduring, they should temporally precede current attitudes and recent information effects. But how should values react (directly, indirectly, or both) with past behavior and information to affect attitudes, norms and intentions? Or more specifically: at what place in the model do values exert their greatest effect?

RQ2: Past behavior precedes current attitudes and recent information effects. But how should past behavior react (directly, indirectly, or both) with values and information to affect attitudes, norms and intentions? Or more specifically: at what place in the model does past behavior exert its greatest effect?

Subsequent to this analysis the function of information (seeking, exposure and attention separately) will more carefully examined. This is the bottom model in Figure 1. Again, a temporal sequencing is assumed in which information seeking precedes exposure, which precedes attention. Because previous work (reviewed above) has demonstrated that exposure's effect is largely through attention, one hypothesis is advanced for the second model:

H3: Best model fit will be achieved by sequencing information seeking, exposure, and attention prior to the TRA model such that attention is the only variable directly affecting attitudes, norms and behavioral intention.

Methods

The larger purpose of this project is to examine the factors associated with water conservation behavior throughout the Truckee River Watershed, and to specifically examine factors predicting the voluntary adoption of water meters in the Reno-Sparks metro area. The final goal of the project, in keeping with the goals of the funding program, is to present recommendations to water planners and policy makers—in this case, on how information may be best used to promote water conservation and voluntary meter adoption. Because a number of other important concepts needed to be included in the study (i.e., several relating to adoption of innovations), and because phone survey methods were employed, it was necessary to operationalize the TRA in a more efficient manner than is done in some of the social psychological literature.

For this analysis, attitude-toward-act, social norms and behavioral intention are each univariate measures. Information seeking and attention are likewise captured in single questions. The other variables included in the analysis are indexed measurements. Information exposure includes nine potential sources: newspaper, television, radio, family, friends, neighbors, Sierra Pacific Power Company (through campaign mail material), other utility companies, and information from other groups (such as University of Nevada Extension). Past behavior is measured by asking if the respondent (yes/no) has executed any of a range of 10 water saving behaviors (e.g., fixing leaks, washing fuller loads, watering less). Summing "yes" responses serves to create a 1-10 index. And environmental values are measured by averaging the response to a set of three questions (1-7 disagree/agree) drawn from the HEP-NEP instrument described previously. Variable names, survey questions, means, standard deviations and reliabilities are reported in Table 1. These approaches to measurement, especially the use of abbreviated forms of the TRA and the HEP-NEP index, were evaluated positively in a pre-test conducted by mail survey in March and April of 1997 (N = 212, 50% response) (for some analyses of these data see Trumbo, Markee, O'Keefe, & Park, 1999).

Interview schedule development, pre-testing, data collection, cleaning and entry were conducted by the University of Wisconsin Survey Center during the summer of 1998, with survey efforts terminating September 1, 1998. A modified random digit dialing sample was used in which directory listings are first analyzed to identify blocks of numbers that are not in use (from all potential target exchange phone numbers in blocks of 10,000). Target numbers are then randomly selected from the "active blocks." This eliminates the inefficiency of randomly dialing dead numbers, but preserves the ability to reach unlisted numbers. This method was used to contact households in four calling areas across the watershed: Truckee, California, Reno-Sparks, Nevada, Fernley-Wadsworth, Nevada, and Fallon, Nevada (with proportional sampling across communities). A total of 733 interviews were competed. Response rates varied by calling area (from 39% in seasonally-occupied Truckee to 57% in Fernley-Wadsworth), with an overall average response rate of 46%. Interviews lasted 15 minutes on average, and most were completed fully, with missing data in only 3% of all cells in the data set. The large sample size was dictated by other analyses targeting contrasts across communities (Trumbo & O'Keefe, 1999) and change over time (Reno-Sparks will be surveyed again in the summer of 2000).

Results

First, it was decided to employ the TRA rather then the TPB. Inclusion of a measure of self-efficacy, response-efficacy or perceived behavioral control ("The things I can do around the house to save water won't really make any difference for the community") did not improve significantly the prediction of intention in any of the analyses to be presented below. The average correlation among the main variables (intention, norms, attitude) is about .42, while the average correlation is only .08 between those variables and self-efficacy. This result was not entirely unexpected. Water conservation in the survey area is a completely voluntary matter, and one needing only relatively simple skills to execute to some effect. This is demonstrated by the distribution of the variable "past behavior," which is statistically normal about a mean of 5.9 (sd 2.2) on an index with a range 0-10. Most folks are clearly capable of doing something to save water. Since the behavior is voluntary and relatively simple, the less complex TRA is employed (other efforts directly testing the TRA vs. the TPB in similar circumstances also report support for the simpler approach, see Sutton, McVey, & Glanz, 1999).

Correlations among the variables in this analysis are presented in Table 2. Because of the sample size, statistical significance should be evaluated at the more stringent .001 level. Effect sizes are good to quite strong. The primary variables of the TRA have correlations of about .42, and other variables to be included have moderate to strong correlations with both each other and with the TRA variables (note that the largest correlations are artifacts to be disregarded, such as that between the index "information effect" and its constituent "information seeking"). Results in this table will be referred to further in later discussion.

The final evaluation of these data will make use of several path analyses executed through structural equation modeling (with AMOS 3.6) (Arbuckle, 1996). This approach allows the examination of a range of relationships controlled for one another (partial coefficients), provides a means for testing the appropriateness of a model against one or more hypotheses, and offers an approach to compare alternate models in order to explore research questions. This approach also provides a number of useful statistics (see Schumacker and Lomax, 1996; Maruyama, 1998). Summary goodness of fit indicators used in this analyses include: the Chi-square/df ratio, which should approach 1 and present a *p*-value greater than .05 (this is the most demanding of the fit indicators because it assesses statistical departure from a "perfect" fit); the Adjusted Goodness of Fit Index (AGFI) takes model complexity into account, and ranges from 0 (no fit) to 1 (perfect fit) with .90 considered acceptable; and the Root Mean Square Error of Approximation (RMSEA) is an assessment of error—.20 is considered the upper bound. Structural modeling and path analyses have been employed to good effect in other research making use of the TRA (e.g., see Taylor & Todd, 1997; van den Putte & Hoogstraten, 1997; Boldero, 1995).

The first modeling analysis focuses (in this order) on the basic TRA model, the inclusion of values and past behavior, the inclusion of information effects, and the optimal arrangement of information, values and past behavior. In this analysis, information seeking, exposure and attention are combined as measures of the latent variable "information effects." The constituent information variables are examined separately later.

To begin, hierarchical regression is used to answer the first and second hypotheses, to explore the first and second research questions, and to lay the foundation for a structural model. Table 3 presents these regressions. First, it is shown that intention is well predicted by attitude and norms, with both variables presenting similar (and significant) partial coefficients. With 24% of variance explained, these data have similar characteristics to previous work with the TRA. The first hypothesis cannot be rejected. What additional effect might information have? The second step of the first regression shows that information increments R^2 significantly by 5%, an amount in keeping with most of the other variables added to the TRA-TPB in previous work (Conner & Armitage, 1998). It is also shown in the fourth and fifth regressions that information effects are a strong predictor of both attitudes and norms. The second hypothesis is also not rejected.

The first and second research questions seek to explore the function of past behavior and environmental values in this emerging model. First, it is shown in the second regression that environmental values and past behavior increment R^2 by an insignificant 1% (and by even less when entered after information, as shown in the third step of the first regression). So values and past behavior don't do much to predict intention (as might have been predicted by the relatively weak correlations shown in Table 2). What about their relationships with attitudes, norms, and information? In the third regression it is shown that values and past behavior together predict 11% of the variance in information. Clearly, the values one holds and one's past actions (themselves correlated $r = .16$) have some influence over the information one seeks and pays attention to. In the second step of the fourth regression it is shown that values and past behavior increment the prediction of attitudes—above norms and information—by 4%. But here it is clear that past behavior is not a strong part of the equation. In the fifth regression we see that environmental values and past behaviors do not significantly improve prediction of norms over the effects of attitudes and information.

Taken together, this series of regressions argues for a model in which intention is directly predicted by attitudes, norms, and information—which all co-vary. Environmental values are antecedent to attitude and information, and past behavior is antecedent to information only. This is the model specified in Figure 2. This model has a good fit with the data, with a desirable non-significant chi-square statistic (a fairly difficult test to pass, especially with a large data set). All of the specified paths have significant partial coefficients, and the R^2 values for the endogenous variables are moderate to good, with 34% of the variance in the dependent variable accounted for. These results will be discussed further in the conclusions.

We turn now to the closer examination of the information variables, and the third hypothesis. For this analysis, information exposure is broken into two components: mediated and interpersonal. An exploratory factor analysis of the exposure variables produced two factors, separating the variables in this fashion. Two additive indices were computed, as described in Table 1.

For the path model, an explicit ordering of relationships was hypothesized. Evaluating the model as specified in Figure 1 yielded a somewhat unsatisfactory fit (chi-square = 150, d.f. = 10, $p < .001$, AGFI = .85, RMSEA = .14). In this model, all of the specified paths are significant and strong. While the third hypothesis must be formally rejected, it is also possible to explore this model for other strong paths that are not specified. Consulting the correlation matrix in Table 2, it seems reasonable to explore a path directly from seeking to attention (indeed, one should closely attend to information that was sought), and to consider relationships from both types of exposure to attitude and norms. The model was respecified to allow these relationships, was run, and was then respecified to trim non-significant paths. The resulting optimized model is presented in Figure 3. This model conforms to the data very well, as indicated by all fit statistics. Information seeking was also allowed to directly predict to intention, but this modification did not improve the model fit significantly, nor the variance explained in intention. The specifics of the model will be discussed in the conclusions.

Finally, while these relationships were not the subject of hypotheses or research questions, some post hoc exploration of the information variables' associations with environmental values and past behavior is warranted. To do so, a saturated model with these five variables was run and then trimmed of non-significant paths. The resulting model is presented in Figure 4, which will also be discussed below.

Discussion and Conclusions

Here we return to a substantive discussion of the path models just described in the results. First, the initial analysis using both hierarchical regression and path modeling, as presented in Table 3 and Figure 2, demonstrates the strength of the Theory of Reasoned Action. As an expression of human decision processes leading to behavior, this theory has a great deal going for it (as many researchers have already demonstrated). But the place of information in this model has been largely ignored. While many studies involving communication have made use of the TRA, few (if any) have intentionally tested the ability of information to improve the TRA. And other efforts to review studies adding new variables to the TRA have not found a body of work on communication that does so. But in this—admittedly basic—test of information's function in the TRA, the results clearly argue that information effects are on par with the effects of most other variables considered for inclusion in the TRA. The composite measure of information effects used here improves prediction of behavioral intention by 5%, while other studies have shown that, on average, this prediction is improved 7% by past behavior, 4% by moral norms or values, and 1% by self-identity (Conner and Armitage, 1998).

Information also has an interesting relationship with the other two variables included in this model: values and past behavior. Although values and past behavior do have significant relationships with behavioral intention ($R^2 = .05$ $p < .001$, both coefficients significant), the two variables do not significantly improve prediction of behavioral intention when attitude and norms are included. But they do appear to play an indirect function through information. Thus, in this model, information plays a significant and central function as an antecedent to behavioral intention.

But how to interpret this? Of course, the context must be considered. In this case, it would seem likely that those with pro-environmental values, and past behaviors consistent with such values, would be more likely to seek and attend to information on water conservation. Information effects, then, are a manner in which enduring value systems and past behavioral patterns are reinforced. Having a high value on the variable information effect must then signify an individual primed to be, in this case, oriented toward conserving water. This is then reflected in the strong relationships between information and both attitudes and norms. Again, this can all be accounted for under the banner of cognitive constancy. It is the remaining direct path from information to intention that is the most intriguing. Seeking, being exposed to, and attending to information provides some direct impetus for the intention to conserve water, beyond a reinforcing effect with attitudes and social norms. This is possibly encouraging news for those who broker information on water conservation in this dry corner of the world.

As described previously, the measure of information effects in the first model is a composite—a fairly broad sword. A good share of research has carefully attended to the characteristics and distinctions of information seeking, exposure and attention. And so must this study. Figure 3 details the closer examination of how "information effects" are playing in the TRA model presented here. The most notable characteristic of this diagram on first inspection is the failure of exposure to interpersonal sources to play much of any role. While predicted by information seeking, and correlated with exposure to mediated sources, it does not seem that interpersonal sources have much association with attention. The lack of an association with social norms is also of note. This may be a consequence of the context of this study, in which a great deal of "social force" on the issue of water conservation is transmitted via the mass media while relatively little may be transmitted interpersonally or by social groups. So much for family, friends, and neighbors.

But as anyone who has carefully followed the issue of water conservation in the area we have surveyed would know, the news media are virtually saturated with coverage of water (Christian, Trumbo & O'Keefe, 1999; Trumbo & O'Keefe, 1999). It comes as relatively little surprise that exposure to mediated information on water conservation not only associates with attention, but also violates the proposed model by directly predicting to both attitudes and social norms. The results do, however, support the earlier results of Drew and Weaver (1990) and the others who hold exposure and attention to be unique entities. Here they certainly are. Along these lines, it's most interesting to note that mere exposure does not link directly to intention, while attention does. The effects of information seeking and exposure are expressed only indirectly through attention, attitudes, and norms. And once again, the relationships with attitudes and norms can be accounted for as a consistency effect—while the effect of attention on intention again demonstrates the logical, and central place of information in the TRA.

And finally, past actions and environmental values were included in the larger model, so it seems important to go beyond the correlations in Table 2 in addressing their relationships with the information variables. While no hypotheses were advanced on this matter, the post hoc analysis suggests some interesting relationships (the focus has been kept on mediated exposure, in the wake of interpersonal exposure's dramatic failure in the previous analysis). The results depicted in Figure 4 demonstrate that the effects of values and past behavior on the composite measure of information is more complicated than suggested in Figure 2. One's past behavior appears to have some predictive power over all aspects of information effects. Of course, it is likely that if one has in the past carried out a number of water saving activities one has also likely sought information on how to do so, been exposed to it, and has paid attention. But values here appear to play only a reinforcing role on attention. This might be interpreted as environmental values being expressed through past actions, which include seeking information. But values also motivate one to pay attention to new information that comes along—information that was possibly not sought, but was simply encountered.

The primary mission of this article has been to test the proposition that information effects can stand their ground along with attitudes and social norms as antecedents to behavioral intention in the Theory of Reasoned Action. The review of the literature, while short of a meta-analysis, shows that communication variables have been considered as adjuncts to the TRA but have rarely be incorporated in the spirit of theory building or expansion. The evidence reported here provides good support for the argument that information and communication variables can and should be considered as fundamental components in any theory or model designed to explain human behavior—but most certainly in the Theory of Reasoned Action. Such variables logically relate to the other variables in the TRA and significantly increment variance explained in behavioral intention, as much or more than other social psychological variables that have been considered viable contenders for inclusion in the model.

Turning the coin, what can such work do to enhance *communication* theories and models? Communication researchers are often criticized as prolific "borrowers" of paradigms from other fields. And, the irony of much of the resulting research is that while it may lead to valid but often narrow hypothesis-testing or useful applied program evaluation, the work seldom either contributes to development of the borrowed paradigm, or leads to innovative, comprehensive views of communication processes. Here an attempt has at least been made to advance the scope and understanding of the purloined social psychological model—and perhaps with some success. Information *does* count in building behavioral intentions. But we can also ask what role behavioral intentions play in communication processes. That is, what have we learned about communication here?

For one thing, it can be concluded that within this limited realm of communication variables, attention is the major player that information seeking and exposure revolve around. This substantiates any of a number of propositions that meaningful, productive communication is an active, motivated behavior. Attention takes effort. And, attention is likely to be stronger when it follows active seeking out of information, another effortful activity. Somewhere along the way comes exposure to information, which may be selectively sought out, processed, and attended to or discarded. Or, information may simply be encountered with minimal effort, and depending on the antecedent interest in the content, and/or interest generated by the content, be attended to or not. This has also been found in this particular case, where seeking information from mass media is far more likely to lead to attention than seeking information from other people. Granted, we have not sorted out "influentials" from the average neighbor next door, but the often assumed primacy of interpersonal communication over media in developing attention that can build interest and perhaps action is clearly absent here. One can claim that the subject of water conservation calls for technical expertise that media may better provide, but on the other hand we are also talking about an economic-political-social issue—to conserve or not—that is normally the grist of interpersonal debate and persuasion.

As for the TRA-TPB specifically, future work should attend to a systematic consolidation of our understanding of what is known about communication's place in the model (perhaps the meta-analysis previously alluded to), and should go forward to purposefully argue for an expansion of Ajzen and Fishbein's well-respected work to include an appropriate place for the processes and effects of communication.

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Table 1. Names, questions, means and standard deviations for variables (N = 733). Unless indicated, responses on 1-7 disagree-agree scale.

variable	survey question	μ	sd
intention	I intend to save more water in 1998 than I did in 1997.	4.7	2.0
social norms	People I know think water conservation is important.	5.6	1.6
attitude	I believe it is important to conserve water.	6.2	1.5
past behavior	Additive index of 10 items representing things done in the past to conserve water (range 0-10). Cronbach's alpha = .63	5.9	2.2
environmental	Averaged index of 3 NEP questions. Cronbach's alpha = .71	6.0	1.3
info effect	Averaged index of seeking, exposure, attention (1-7 scale) Cronbach's alpha = .64	3.3	1.4
seeking	How much effort have you made this year to look for information on water conservation? (1 = none to 7 = a great deal)	2.7	1.9
attention	When you come across information on saving water, how much attention do you give it? (1 = little to 7 = a lot)	4.7	1.8
exposure	Averaged index of exposure (0 = never to 10 = a lot) to range of information sources. Cronbach's alpha = .75	2.4	1.9
interpersonal exposure	Averaged index of exposure to 4 personal sources of information on water conservation (0 = never to 10 = a lot). Cronbach's alpha = .73	1.4	1.4
mediated exposure	Averaged index of exposure to 5 mediated sources of information on water conservation (0 = never to 10 = a lot). Cronbach's alpha = .62	2.7	1.4

Table 2. Zero-order correlations among variables (N = 733).

		1	2	3	4	5	6	7	8	9	10	11
1	Behavioral Intention	-										
2	Attitude Toward Act	.41	-									
3	Social Norms	.43	.43	-								
4	Environmental Values	.17	.28	.13	-							
5	Past Behavior	.15	.18	.16	.16	-						
6	Information Effect	.38	.34	.25	.18	.31	-					
7	Information Seeking	.27	.23	.15	.09	.25	.80	-				
8	Information Exposure	.20	.17	.17	.08	.20	.71	.34	-			
9	Attention	.39	.36	.27	.24	.26	.78	.50	.28	-		
10	Interpersonal Exposure	.17	.16	.15	.07	.22	.58	.43	.61	.28	-	
11	Mediated Exposure	.23	.21	.21	.12	.24	.63	.40	.69	.35	.46	-

All correlations significant at $p < .05$, correlations greater than .13 significant at $p < .001$

Table 3. Hierarchical regressions leading to configuration of path model. All partial coefficients are from the saturated equation (N = 733).

Reg	Step	Dependent Variable	Independent Variable	β	ΔR^2	*p*	R^2	*p*
1	1	intention	attitude	.20				
	1		others	.28			.24	<.01
	2		information	.24	.05	<.01	.29	<.01
	3		environmental values	.04				
	3		past behavior	.00	.00	.54	.29	<.01
2	1	intention	attitude	.25				
	1		others	.29			.24	<.01
	2		environmental values	.06				
	2		past behavior	.06	.01	.07	.25	<.01
3	1	information	environmental values	.14				
	1		past behavior	.29			.11	<.01
4	1	attitude	norms	.36				
	1		information	.21			.24	<.01
	2		environmental values	.22				
	2		past behavior	.04	.04	<.01	.28	<.01
5	1	norms	attitude	.36				
	1		information	.11			.20	<.01
	2		environmental values	.01				
	2		past behavior	.06	.01	.29	.21	<.01

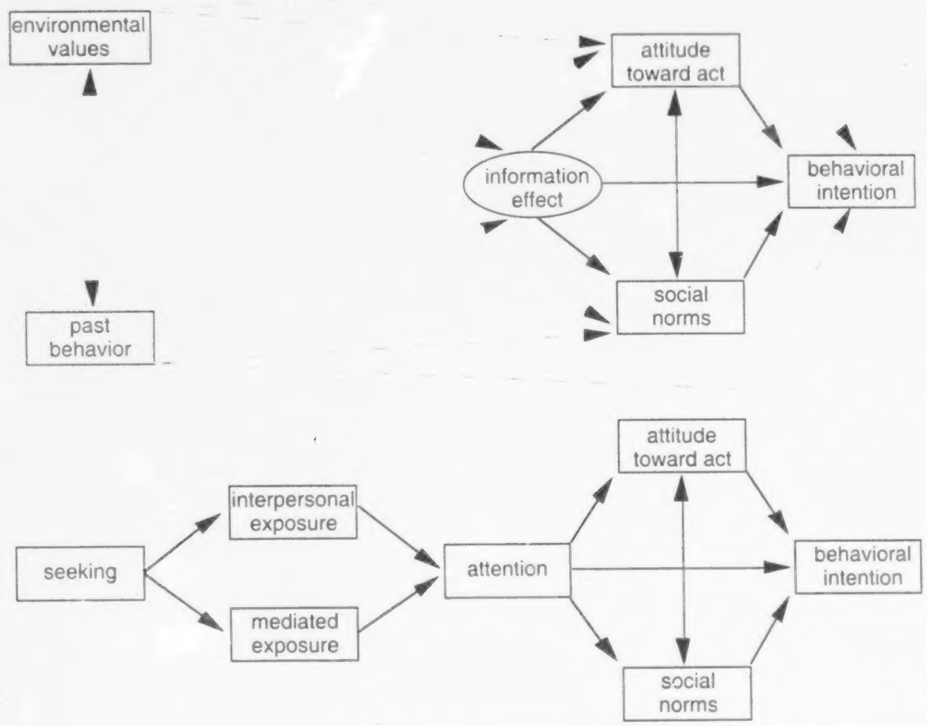
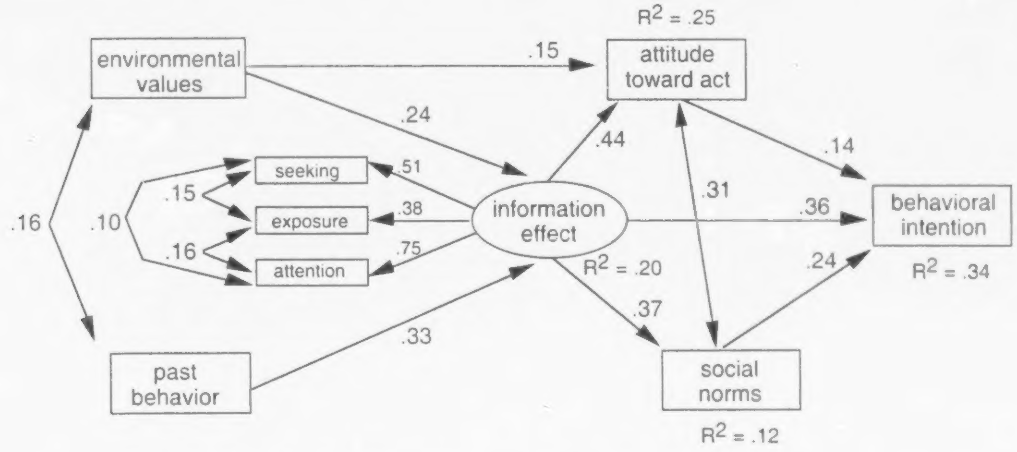

environmental values
attitude toward act
information effect
behavioral intention
social norms
past behavior
attitude toward act
interpersonal exposure
seeking
attention
behavioral intention
mediated exposure
social norms

Figure 1. Models to be evaluated. In top model, solid lines represent hypothesized relationships while dashed lines represent relaqtionships to be explored. All relationships in bottom model are hypothesized and directional.


R2 = .25
environmental values
.15
attitude toward act
.24
.44
.14
seeking
.51
.31
.15
.16
.10
exposure
.38
information effect
.36
behavioral intention
.16
attention
.75
R2 = .20
.24
R2 = .34
.37
.33
past behavior
social norms
R2 = .12

$\chi^2 = 19$ df = 12 $p = .08$ AGFI = .98 RMSEA = .03 N = 733

Figure 2. Structural equation model with values, past behavior, and information effects as co-variate antecedents incorporated into the Theory of Reasoned Action (standardized coefficients).

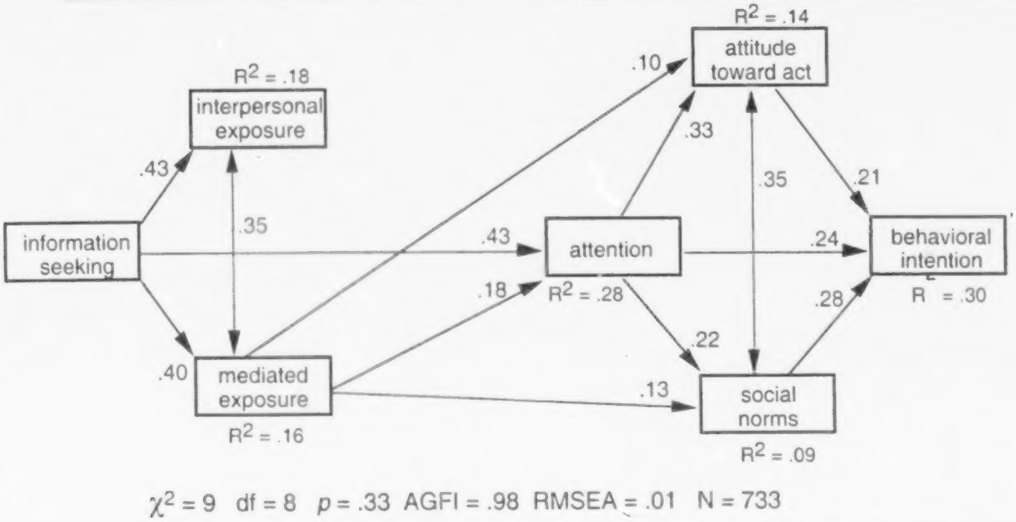
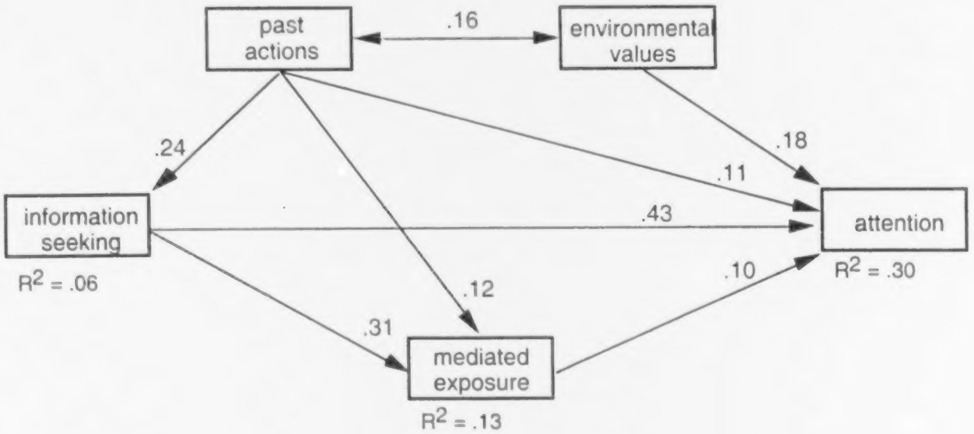

R2 = .14
attitude toward act
.10
R2 = .18
interpersonal exposure
.33
.43
.35
.21
.35
information seeking
.43
attention
.24
behavioral intention
.18
R2 = .28
.28
R2 = .30
.22
.40
mediated exposure
.13
social norms
R2 = .16
R2 = .09
χ2 = 9 df = 8 p = .33 AGFI = .98 RMSEA = .01 N = 733

Figure 3. Structural equation model with optimal arrangement of information seeking, exposure to personal and mediated information, and attention as antecedents incorporated into the Theory of Reasoned Action (standardized coefficients).


past actions
environmental values
information seeking
attention
mediated exposure
.16
.24
.18
.11
.43
.12
.10
.31
R2 = .06
R2 = .30
R2 = .13

$\chi^2 = 3$ df = 2 $p = .21$ AGFI = .99 RMSEA = .03 N = 733

Figure 4. Structural equation model of post hoc exploration of the relationships among past action, environmental values, information seeking, exposure, and attention.

CTvM

Support of the Film Industries in France and Italy in the Late 1990s

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Support of the Film Industries in France and Italy in the Late 1990s

ABSTRACT

France and Italy each possess a proud film history. Both have made significant efforts to bolster their film industries for most of the 20th century. The results have been mixed. This paper examines and compares the efforts of France and Italy to maintain their film industries in the second half of the 1990s. It also offers policy recommendations for the future.

Support of the Film Industries in France and Italy

Introduction

In 1993, near the end of the Uruguay Round of GATT negotiations, the European Union, led by France, and the United States waged a major battle over the status of audiovisual products, such as films and television programs. The United States wanted to include these products in the treaty and eliminate the protective system of subsidies and quotas that many European countries had created. The European Union argued that these products deserved to be protected because of their cultural significance. After heated negotiations, the United States finally relented. Without an international trading agreement to stop them, the countries of Europe were free to pursue any methods to support their audiovisual products.

This paper specifically examines and compares the efforts of France and Italy to maintain their film industries in the second half of the 1990s.

France and Italy are worth investigating and comparing for several reasons. First, each possesses a proud film history. Next, each has attempted a variety of strategies to aid its film industry. Finally, each is a member of the European Union.

History

World War II

World War II had a drastic, negative impact on the European film and cinema industry. The war wrecked the infrastructures and economies of Europe. In France, for example, "studios and cinemas had been destroyed; there was no heating, no film stock" (Jeancolas, 1998, p. 47). In contrast, the war had not harmed the United States' infrastructure and economy, and during the war it continued to produce films (Puttnam, 1997, p. 160). Following the war, the American film industry looked to "regain its dominance in the rest of the world" (Puttnam, 1997, p. 157).

In 1946, France and the United States signed the Blum-Byrnes Agreement. This agreement erased France's war debt to the United States and gave France $650 million in aid. It also made it easier for American films to make it to French screens (Puttnam, 1997, p. 160). In Italy, the postwar government removed much of the country's protectionist legislation (Puttnam, 1997, p. 162).

These political maneuvers plus the huge European demand for such films as *Gone with the Wind* and *Citizen Kane* helped to flood Europe with American films (Jeancolas, 1998, p. 48). In response to this deluge—and the accompanying protest from the European film industry—European governments soon adopted systems of aid and support designed to thwart American film dominance.

Protection and support of cinema had existed in European countries before the war (Nowell-Smith, 1998, p. 3), but this fresh wave of American films spurred more. Italy created a credit system that favored producers, distributors, and exhibitors (Thomas, 1996, p. 496).

France established an administrative agency in charge of regulating cinema, Le Centre National de la Cinématographie, or CNC, which devised a set of aids for the film industry (Thomas, 1996, p. 497). Protection of, and aid to the French and Italian film industries have remained in place to the present day.

Television

Expansion

Other than war, the biggest effect on the European film industry has been the emergence of television. It has both harmed and helped the European film industry.

In the 1960s, television was changing people's behavior in Europe. They preferred staying at home rather than going to the theaters, "which were increasingly decrepit and in need of renovation" (Thomas, 1996, p. 497).

Geoffrey Nowell-Smith wrote: "Television grew inexorably and—with an equal inevitability, though the effect was slow to make itself felt—cinema shrank" (1998, p. 9).

In France and most other countries the decline in cinema attendance from the 1960s through the 1970s was gradual and constant. But in Italy the fall was more dramatic.

In 1976, the Italian Constitutional Court ruled that private television broadcasting could not be restricted. As a result, about 400 local TV stations appeared. They broadcast 1,500 feature films every day. Between 1975 and 1983, cinema attendance declined by almost 70 percent (513 million to 161 million). According to Robin Buss: "[The ruling] virtually destroyed the cinema market" (1989, p. 15).

But at the same time, governments were using revenues from television, which was state-owned, to help film industries across Europe. As television prospered, the revenue from license fees on televisions grew, and governments used a portion of the revenue to support the cinema industry (Thomas, 1996, p. 497).

Privatization

Following Italy, France introduced private television stations in 1985 (Browne, 1999, p. 102). Through the 1980s, the number of television stations in Europe mushroomed.

Advertising revenue for these new stations was not guaranteed, so they tended to buy the cheapest programming available—programs from Hollywood. To limit the amount of American programming, some European countries, led by France, pushed for a quota system. This effort led to the passage of a European Union (EU) directive called "Television Without Frontiers" (Puttnam, 1997, p. 271).

Television Without Frontiers

Television Without Frontiers was introduced in 1989. It required that within each European country at least 50 percent of television programs (excluding news and certain other types of nonfiction shows) be of European origin, "where practicable" (Puttnam, 1997, p. 271).

The United States opposed the measure, as did the United Kingdom, Italy, Spain, West Germany, Denmark, and Belgium (Noam, 1991, p. 293, as cited in Chao, 1996, p. 1134). The "where practicable" phrase meant that each member state could decide whether to mandate the programming requirement.

The directive passed, but the dispute over quotas between the EU and the United States and within the EU continued.

Uruguay Round of GATT

The issue of quotas surfaced again during the Uruguay round of the General Agreement on Tariffs and Trade (GATT), which lasted from 1986 until 1994. GATT is a set of multilateral trade agreements aimed at, among other things, the abolition of quotas among the contracting nations.

The United States wanted GATT to include audiovisual products (including film and television), which would eliminate the quotas instituted with the Television Without Frontiers directive. The European Union, most vocally France, wanted to exclude the audiovisual products under a "cultural exception" (Puttnam, 1997, pp. 273-274).

The rhetoric during the negotiations was sharp. Jack Valenti, head of the Motion Picture Association of America, said of the European cultural identity argument: "If you equate Europe's game shows and talk shows with Molière and Racine, then that's about culture. But the culture issue is a transparent cloak, and I want to disrobe Europe on this" (qtd. in Dodwell, 1993, p. 6).

Wim Wenders, a German director and then chairman (and now president) of the European Film Academy said: "People increasingly believe in what they see, and they buy what they believe in. If we ever give up the European film industry, then all the other European industries will suffer in the future. People use, drive, wear, eat and buy what they see in the movies. We need to regard our films in the same way as we do our literature. Books would never be included in international trade industry deals" (qtd. in Robinson, 1993).

Fearing that the issue would derail the entire talks, the U.S. relented and the issue was "left open for future discussion" (Puttnam, 1997, p. 274). One hundred seventeen nations agreed to GATT on December 15, 1993.

The Europeans, especially the French, were elated. French Communications Minister Alain Carignon said: "This is a great and beautiful victory for Europe and for French culture" (qtd. in Riding, 1993, p. D19).

And the Americans were furious. Valenti said of the negotiations: "[T]hey put their final offer on the table and it was a joke. It was so porous, so full of holes, of words with no meaning" (qtd. in Fuller, 1993).

Aid and Support Mechanisms in the Late 1990s

Without an international treaty to stop them, the governments of both France and Italy continued to aid their film industries. This section highlights the latest actions on several fronts.

France

France has provided aid and support to its film industry for decades. In the second half of the 1990s these efforts have continued and, in most areas, increased.

Quotas

Although the quota system does not apply to films, one of its intentions is to increase the demand for French and European produced films. Another goal of the quotas is to keep American audiovisual products out of Europe.

In 1995, France proposed to make the quota system more strict by eliminating the "where practicable" phrase of the Television Without Frontiers directive (Tucker, 1995). Other EU countries, including Britain and Italy, argued for phasing out quotas altogether, saying they violated free trade principles (Perry, 1995, as cited in Chao, 1996, p. 1136).

By 1996, however, Italy had a new center-left government that was more favorable toward quotas, and it switched its support to the French side. Its support of the compromise was significant (Buerkle, 1996). In June 1996, The European Council of Culture Ministers voted to maintain the existing Directive.

The agreement "reflected political exhaustion." Neither side won a clear-cut victory. (Buerkle, 1996).

Subsidies

In its 1999 budget, the CNC increased its subsidies to the film and audiovisual industry by 2.5 percent to $475 million. The subsidies aid French film producers, distributors, and exhibitors, as well as TV producers and the video industry (Bortin, 1998). The money comes from an 11 percent tax on cinema tickets ($108 million), a 5.5 percent tax on television stations' revenue ($311 million), and a 2 percent tax on video distributors' revenue ($56 million) (Moore, 1994, p. 295). This system was begun in the 1960s (Thomas, 1996, p. 497).

Perhaps in response to small theater owners' complaints of influx of multiplexes (Tartaglione, 1999), the 1999 budget gives the biggest rise in funds to exhibitors (Bortin, 1998). The funds help small theater owners to upgrade their facilities and better compete with the new multiplexes. In 1990, 10.6 percent of French screens were in multiplexes; by 1996, the percentage had grown to 18.4 percent ("European Multiplex Cinemas," 1996, p. 107). As of early 1999, France had 41 existing multiplexes and 32 under construction (Tartaglione, 1999).

Speaking about the overall effect of subsidies, Marc Tessier, the head of the CNC said: "I think the policies we are pursuing are bearing fruit. They are responsible in part for the very strong surge in movie attendance in France" (qtd. in Bortin, 1998).

Co-productions

Co-productions allow the producers of the film to receive subsidies from multiple countries. France produces more films—183 in 1998—and participates in more co-productions—81 in 1998—than any other country in Europe ("Film Production/Distribution," 1999, p. 130).

In 1997, France signed a co-production agreement with Italy. Under the agreement producers needed a ten percent minority partner from either France or Italy to receive government funds from that country (Vivarelli, 1997, August 29).

Investment

The Societes de Financement du Cinema et de l'Audiovisuel (SOFICA) is a French government-approved tax-sheltering program designed to attract investment for film and television production. The shareholders who invest in SOFICA get a tax break, and SOFICA uses the funds to finance films that meet its production criteria (Moore, 1994, p. 295). In 1999, $46.1 million was invested into the plan. The contribution of SOFICA to film and television production is about seven percent ("French tax breaks," 1999).

Italy

Quotas

Italian broadcasters are required to abide by the Television Without Frontiers directive, but only "where applicable." In 1998, new legislation set additional investment quotas. The legislation required that the public broadcaster, Radiotelevisione Italiana (RAI), must invest at least 20 percent of its license fee revenue into the production and acquisition of European or Italian works. Also, the two top private broadcasters, Mediaset and Telemontecarlo, must invest at least 10 percent of their advertising revenue into European TV programming. These requirements would total approximately $378 million (Vivarelli, 1999, September 27).

The Culture Minister at the time, Walter Veltroni, said: "During the 1980s, RAI was just a big jukebox for foreign fare, now it must become the driving force of our audiovisual industry" (qtd. in Vivarelli, 1998, September 11).

Subsidies

In 1998, Italy altered its film fund. It created the Intervention Fund, which allows producers with approved projects to receive low- and no-interest loans through any bank. This fund replaced a system in which producers were required to obtain loans from through the government's Banca Nazionale del Lavoro. A related fund, the Guaranteed Production Fund, which was created in 1994, continues in its current form. It awards seed money to films considered to be of "national cultural interest." Both funds are available exclusively to Italian films or co-productions with a majority-Italian stake (Rooney, 1999, May 17, p.44).

Last year the state invested $94 million in 70 films. Recently, the maximum budget eligible for financing was raised from $2.3 million to $4.6 million, which is "a boon to medium-budget productions" (Young, 1998, February 23, p. 38).

Co-productions

Italy has recently signed three co-production agreements with other countries in addition to the pact signed with France in 1997, discussed earlier.

In September 1999, the culture ministers of Italy and Germany announced a film co-production agreement and pledged to further boost industry cooperation by implementing joint distribution and marketing subsidies (Vivarelli, 1999, September 28).

The agreement provides state aid from both countries to film projects that have at least 20 percent of the financing from one of the countries and the remaining 80 percent of the financing from the other country. The agreement replaces a 1966 treaty that generated 16 movies in about 30 years (Vivarelli, 1999, September 28).

In May 1998, Italy and Great Britain signed a co-production agreement ("Tom Clark Signs," 1998). In 1996, Italy became an official participant in the European Council's convention for film co-productions (Rooney, 1996, March 10, p. 30).

Multiplexes

Italy lags behind the rest of Europe multiplex development. In 1990, 0.9 percent of the screens were in multiplexes; in 1996, 1.0 percent of the screens were in multiplexes. This is the lowest percentage in Europe—for instance, in 1996, France had 18.4 percent and the UK had 57.5 percent ("European Multiplex Cinemas," 1996, p. 107).

However, since 1996, the government has attempted to catch up. In 1997, 518 new screens opened, seven times the normal number, because of the Culture Ministry cut out "mounds of red tape" (Young, 1999, February 23, p. 38). By 1999, the percentage of screens in multiplexes had risen to five percent, (Rooney, 1999, January 11, p. 39).

The development, however, is not without its limits. In December 1998, the government began restricting the development of large cinemas (more than 1,300 seats) to "underscreened" areas. Also, these large cinemas must regularly show 15 percent European product on at least three of their screens (Vivarelli, 1998, December 15).

Also, one feature of multiplex development is that foreign investors seem more eager than local investors to build multiplexes. The locals choose instead to renovate existing or abandoned single-screen cinemas into two- or three- screen cinemas (Christian, 1999, p. 60). Fearful that foreign interests will dominate a majority of the new screens, the government has sought to pass antitrust legislation.

Antitrust legislation

In September 1999, the government approved a law designed to prevent monopoly ownership of Italy's cinema screens.

The law would stop any one person or company from owning more than 20 percent of Italy's movie theaters. It would limit the screening of a film to 20 percent of Italy's theaters. And, it would limit the daily program at a theater to 25 percent of films from the same distributor, unless the distributor were European, and then the limit would be 40 percent ("Italy Approves Draft Law," 1999, September 17).

The parliament still must approve the law, and it is likely to face difficulty. MP Giuseppe Rossetto of the opposition Freedom Alliance said: "If radical changes aren't made to this deeply anti-market-oriented proposal, it will never become law" (qtd. in Vivarelli, 1999, September 21).

Giovanna Melandri, the Culture Minister since the end of 1998, said: "The antitrust discipline will allow European, Italian and independent product to reach audiences…We believe the market is there, but we need to give everyone a chance. The anti-trust law will regulate the American presence on the Italian market. That's obvious" (qtd. in Young, 1999, August 30, p. 18).

According to Melandri, the proposed law would be Italy's first antitrust measure in the cinema industry ("Italy Approves Draft Law," 1999, September 17).

Exporting

Italy has also made an effort to get more of its films screened in other countries.

In October 1999, the Italian government doubled the budget to promote Italian audiovisual products in other countries (Zecchinelli, 1999, October 25, p. 19).

In July 1999, representatives from Italy and the United States signed the Declaration of Taormina, which focused on how more European movies can make their way to American screens. The Italians hope to benefit from the American experience in distribution via satellite, cable, Internet, DVD, and theme-based TV networks. One recent Italian film that successfully made it to American theaters was "Life is Beautiful," which was produced in Italy and released by Miramax in the U.S. (Young, 1999, August 16, p. 19).

Miscellaneous

The Italian government has implemented a number of other strategies to boost the film industry. In September 1998, it launched a new promotional agency, Agenzia Per La Promozione del Cinema Italiano (Vivarelli, 1998, September 8). Since 1997, it has encouraged exhibitors to lower their prices to spark attendance—attendance is up and so is revenue (Young, 1998, February 23, p. 38). Also, aided by the air-conditioned comfort of the multiplexes, the government has encouraged cinemas to stay open in the summers, a time they are traditionally closed (Vivarelli, 1998, May 20).

Government Interest

The flurry of activity to aid the Italian film industry seems in some part due to genuine government interest in the film industry. From World War II until 1996, when the center-left government of Massimo D'Alema gained control, this interest rarely existed (Rooney, 1996, June 17, page 11).

Many give the credit for the government's initiatives to Walter Veltroni, Italy's Deputy Prime Minister from April 1996 to October 1998. Veltroni, a noted cinephile, "took a concrete interest in changing not only laws, but industry habits" (Young, 1998, February 23, p. 38). After Veltroni left the post in 1998, Gillo Pontecorvo, head of Italy's state film group, Ente Cinema, said of his efforts: "Veltroni did an extraordinary job; something unprecedented in the film industry" (qtd. in Rooney, 1999, November 2, p. 11).

In October 1998, Veltroni left his post to head the Democrats Left party and Giovanna Melandri was appointed the minister of culture. The Italian entertainment industry sees her appointment as an extension of the climate fostered by Veltroni (Rooney, 1999, November 2, p. 11).

European Union

In addition to efforts by the national governments of France and Italy, the European Union has instituted programs intended to strengthen the film industries of its member states.

The first European Union effort directed toward the audiovisual sector was the Television Without Frontiers directive, discussed previously. Another European Union initiative is the MEDIA (Measures to Encourage the Development of the Audiovisual Industry) program. The MEDIA program, begun in 1990, provides support for the European film and television program industry "with the aim of making this industry more competitive and more capable of meeting the needs of an ever-increasing number of television stations" ("Audiovisual Policy," 1999).

The original MEDIA program ran from 1990 through 1995 and spent about $203 million, and its successor, MEDIA II, will run from 1996 through 2000 and will spend about $315 million ("Audiovisual Policy," 1999). In 1999, European Union ministers responsible for culture and audiovisual policy agreed that the MEDIA II program should be strengthened ("Culture/Audiovisual Council," 1999).

In 1998, members of the European Union met at the European Audiovisual Conference in Birmingham, England. Delegates agreed that to create "more dynamic and competitive conditions for the European audiovisual content industries," the MEDIA II program should be strengthened; cultural diversity should be maintained; skills development should be emphasized, and exports should be boosted ("Proceedings," 1998).

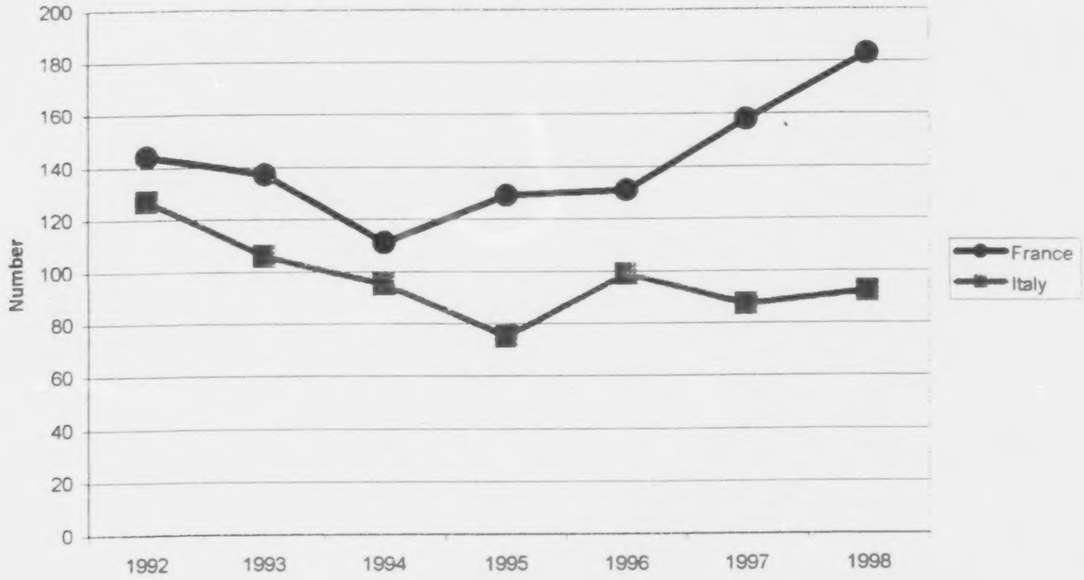
Results of the Initiatives

Both France and Italy have made significant efforts to bolster their film industries. The results of these efforts have been mixed.

Film Production

First, the quota systems, subsidies, and co-productions seem to have had a positive effect on film production (see Figure 1). France increased its output by nearly 21 percent from 1996 to 1997 (131 to 158) and nearly 16 percent from 1997 to 1998 (158 to 183). Italy has not recorded that level of improvement, but it has managed to relatively stabilize production after significant decline between 1992 and 1995 (127 to 75).

Figure 1. Feature films produced in France and Italy, 1992-1998.

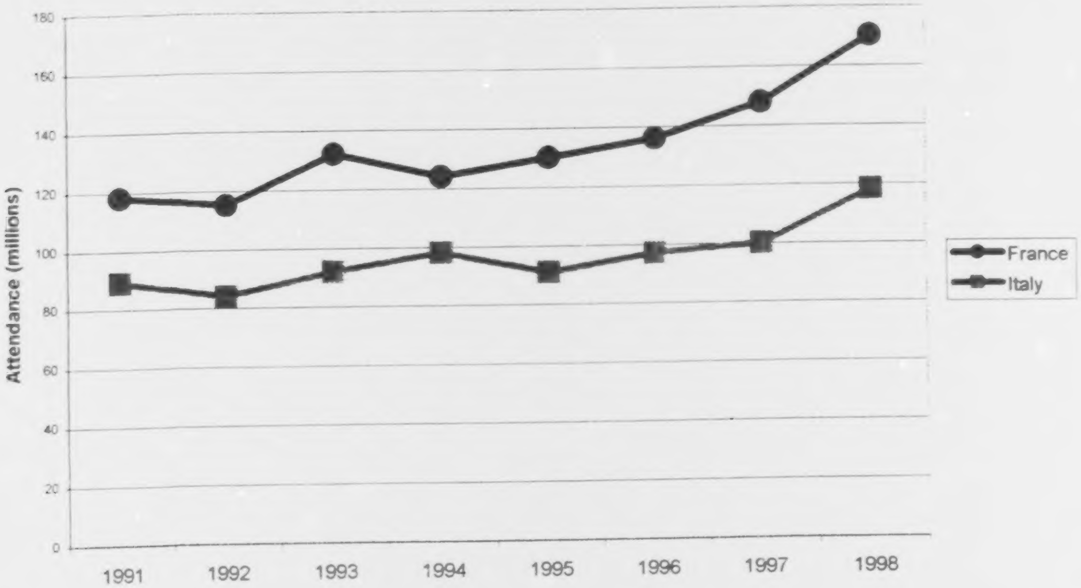


Sources: European Audiovisual Observatory, 1999, p. 80; Screen Digest, 1999, June, p. 130.

Cinema Attendance

Next, the introduction and expansion of multiplexes, made possible in part by relaxed building laws, seems to have sparked an increase in cinema attendance (see Figure 2). In France, attendance increased 37 percent between 1994 and 1998 (124 million to 170 million). In Italy, attendance increased 30 percent between 1995 and 1998 (91 million to 118 million). In 1997, attendance surpassed 100 million for the first time in the 1990s.

Figure 2. Cinema attendance in France and Italy (in millions), 1991-1998.

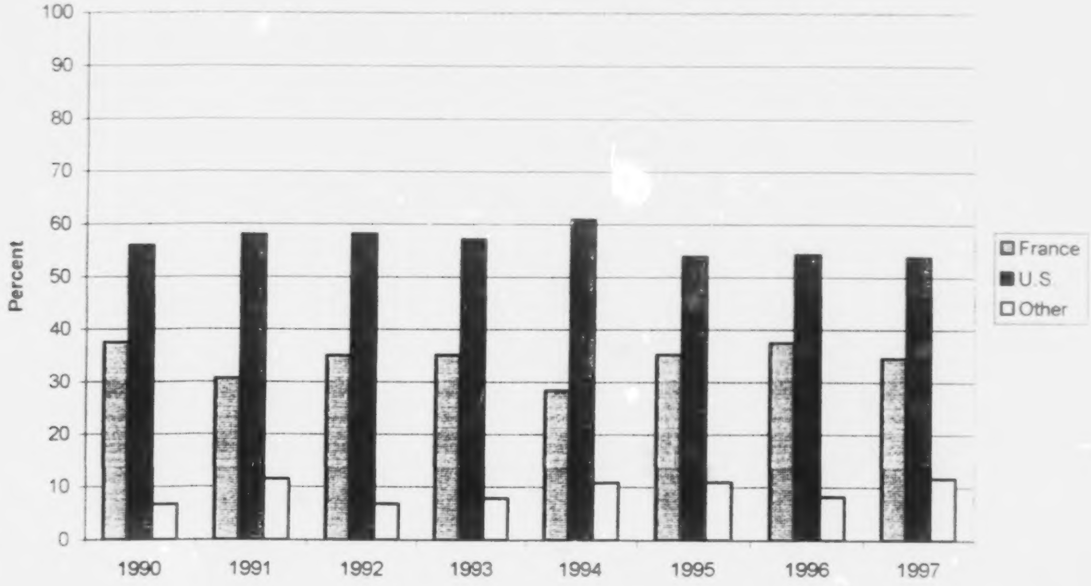


Sources: European Audiovisual Observatory, 1999, p. 89; Screen Digest, 1999, September, p. 231.

Domestic Market Share

In contrast, the performance of domestic films in domestic markets has not improved. American films continue to dominate European screens. France's share of its domestic market hasn't cracked 40 percent in this decade, and America's share has not fallen below 50 percent (see Figure 3).

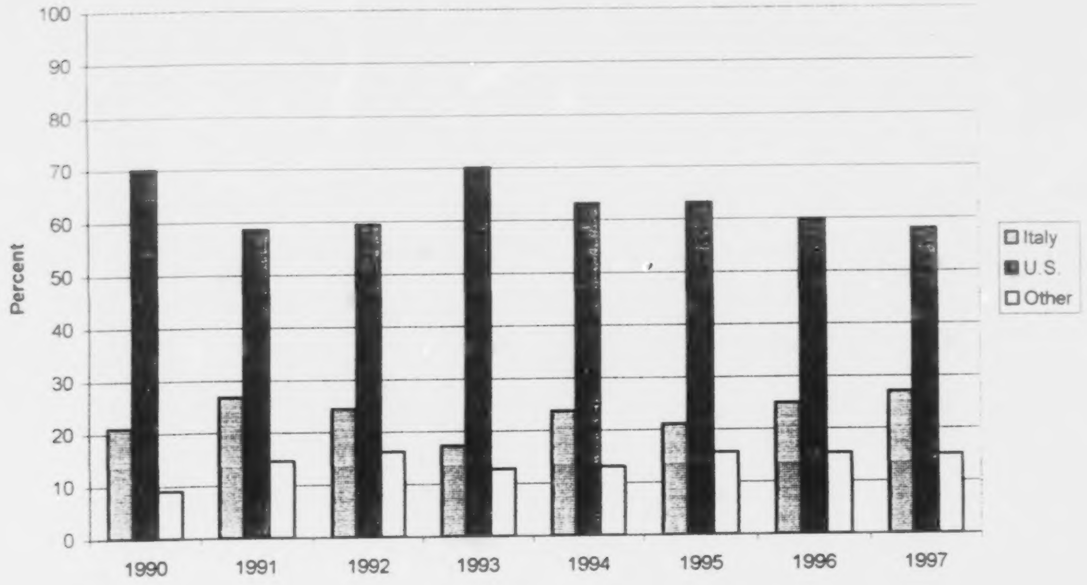
Figure 3. Market share in France by origin of film, 1990-1997.



Source: European Audiovisual Observatory, 1999, p. 96.

Italy's share of its domestic market has not hit 30 percent in this decade, and the American share has not dipped below 55 percent (see Figure 4).

Figure 4. Market share in Italy by origin of film, 1990-1997.



Source: European Audiovisual Observatory, 1999, p. 97; Screen Digest, 1998, June, p. 131.

Influence of Television

Another result of these government efforts has been the increased influence of television. The quota requirement of the Television Without Frontiers directive has provided a steady, legislated demand for films. Also, television has become a major source of funding—either directly, through television's investment in film, or indirectly, through taxes on television broadcasters that are later distributed to film in the form of subsidies. The film industry has become dependent upon television—for demand and for money. Geoffrey Nowell-Smith wrote: "For a while [the cinema] maintained its rivalry with [television]. Then with some reluctance, it entered into co-operation. And it has now entered into a state of effective subordination." (1998, p. 9).

Recommendations

Overall, the film industries of France and Italy have performed well in the latter half of the 1990s. Much of their success is due to the policies of their national governments and the European Union. However, this success masks some dangers to the film industries.

First, the government policies could change. Politicians control government, and politicians can change.

At the national level, although a drastic change in government policy is possible in any country, it is more likely in Italy than in France. The pro-cinema policies of the Italian government since 1996, it could be argued, are largely the result of one man's work. Indeed, since World War II there have been few Italian governments that have supported film in the way the current government has. Italy's political landscape is traditionally unstable. A government not as sympathetic to the film industry could sweep into power and strip away many of the policies.

At the European level, the attitude toward film is not harmonious. For example, in 1996, France could not pass a stricter version of the Television Without Frontiers directive. In 1999, France struggled more than ever against other EU countries to keep audiovisual products out of the world trade negotiations ("Culture/Audiovisual Council," 1999). Eventually, audiovisual products could find their way into world trade negotiations. If that were to happen, the quotas and subsidies in Europe would be in grave jeopardy.

Second, the policies have made the film industry dependent on the television industry. It is risky to depend on another media to survive.

One risk is that the source of the funding affects the product. Terry Ilott wrote: "[Television tends] to support intimate, parochial projects, thereby contributing to the reduced commercial and creative ambitions of European cinema" (1996, pp. 30-31). The more influence television has, the more the films produced are geared toward the small screen of television rather than the big screen of the cinema.

Another risk of films relying on television is that advancing technology makes the future uncertain. It is possible that the Internet could become the broadcasting medium of choice. Quotas would be difficult to enforce. The revenue from traditional broadcast networks could diminish.

For these reasons—the vicissitudes of government policy and the effect and uncertain future of television—the aid and support of the film industry must be gradually dismantled. The money must not come from television broadcasters; it must come from investors who believe the film will make money on the big screen. The demand must not come from quotas; it must come from audiences.

Also, government and industry leaders must encourage domestic ownership of multiplexes. Domestic owners would likely screen more domestic films. France has done well in this area and Italy should do the same.

To summarize, government and industry leaders must realize that they must make changes to ensure the long-term survival of the film industry in France and Italy. They must:

- Begin to dismantle government subsidies and quotas.
- Rely less on television.
- Encourage domestic ownership of multiplexes.

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CT&M

The Theory Is the Press: A View of the Press as Developer of Informal Theory

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Abstract

This article proposes that the press develops and disseminates informal theories, derived from the primary culture, that govern institutions. Press freedom requires freedom from cultural restraints that are difficult to recognize. Emphasis on press content often ignores implicit relationships. In the absence of explicit relationship definition, culture defines the relationships in press content. Conflict occurs when social components reject or ignore an asserted relationship type. This study recommends analyzing relationships as monadic, dyadic or triadic.

Introduction

This article proposes an alternative view of the press as a theory creating activity rather than a theory governed activity. The press is a theory in the sense that it is a tentative expression of apparent or supposed relationships between or among concepts. The concepts can be the components of society or societies themselves. They can be social, political, economic, or religious institutions. In short, the concepts can be any phenomenon in the social, natural or supernatural environment of a society. The press defines and organizes concepts through the complex and logical syntax of language. But in the editorial process of selecting, defining and organizing concepts, the press comes to stand for the relationships between concepts.

Both practitioners and scholars will find this approach useful. For practitioners, it offers a systematic method for reducing cultural bias. Although the ideal of objectivity may be technically unattainable, this approach can help practitioners expand their perceptions of institutions and their relationships. For scholars, it offers a taxonomy for the analysis of press systems within their supporting cultures. This approach also offers an expanded framework for comparing press systems both within and between cultures. For both practitioners and scholars, it opens common ground for discussion that is not bound values or ideology.

The press is an informal theory statement in the sense that much of human learning is informal. Humans create informal theories about their environments, and learn to perceive their environments according to their theories. For example, after directly observing adult behavior, young children develop theories of interior illumination and wall switches. Their curiosity compels them to develop and test informal hypotheses, playing with wall switch and observing for expected outcomes. The rewards, punishments, or indifference from adults responding to children's hypothesis tests leads to informal theories of adult behavior.

What humans cannot perceive directly through personal experience, they experience indirectly through some medium, such as the press. Media provide the necessary information for induction, empirical generalization, informal theories, and deduction. In that way, the press allows people to build and to test informal theories of their world through indirect observation. But the press exhibits theory when it acts as a surrogate for some social component, or as an independent social component. In those situations, the press represents the relationship between concepts.

The importance of that representation has been implicit in discussions of a New World Information and Communication Order (NWICO). Because a few media organizations gained dominance in global communications, people in less developed countries (LDCs) see their world from an external point of view. Through media, people learn of a world different from that in which they live (Reyes Matta 1980). Because the theoretical world does not coincide with the actual world, people in LDCs are poorly prepared to participate in their own development. Even critics of NWICO recognized the importance of evolving relationships reflected in media (Harley 1984, 26). And the word "order" itself implies relationship, a ranking of concepts.

A view of press as theory has been implicit in scholarly studies. One study has identified actors, or concepts, in the communication process, and advocated the inclusion of new actors within new models, or theories (Winseck 1997). In addition to identifying concepts, another study discusses cultural theories of institutions, and how the press behaves according to those theories (Mowlana 1993). Some studies of technology, production and distribution assert that press behavior defines the theoretical reality outside of its own culture (Schiller 1993). Critical studies often advocate that the press manifest normative theories of political and economic systems (Habermas 1975).

In presenting the argument for the press as informal theory, I draw from Reynolds (1971), who identifies three theory forms statement types associated with those forms. I discuss how the press makes those statements, and suggest how press content and action conforms to one of Reynold's theory forms. The choice of forms is merely convenient for illustration; the others two forms are equally useful. Then I discuss two basic relationship types found in human communication, and discuss how press behavior manifests one of the types. I propose additional categories for relationships defined according to the number of implicit or explicit concepts in the relationships expressed.

The approach I recommend here facilitates a convergence of two seemingly opposite perspectives. Each perspective has tended to emphasize exclusively one of two aspects common to all communication: data and relationship. Cross-cultural studies utilize two perspectives that correspond to the two communication aspects. The etic perspective is an external, objective and analytical view that emphasizes similarities. The emic perspective is an internal, subjective and experiential view that emphasizes differences. These two perspectives frustrated much of the NWICO debate because participants have talked past one another. The etic perspective emphasizes data, and the emic perspective emphasizes relationships.

I have borrowed the two relationship types from studies of interaction patterns at the interpersonal level of communication. I assume a fundamental similarity of the various forms of human communication, particularly between interpersonal communication and mediated communication among groups. Communication patterns among groups and institutions may be more complex because of patterns within groups. To avoid becoming mired in complexity, this study will use two basic relationship types, symmetrical and complementary, as exhibited in human communication.

Building theories: Concepts and statements

Defining concepts is a necessary part of theory construction. The press defines concepts through existence statements that give the component parts of concepts. The parts may be abstract or concrete, but they give concepts their intensive definitions, the qualities and characteristics of concepts. They are the semantic features of the concept name, the concept components. Often, the press implies intensive definition by illustrating extensive definitions, which are all the cases in which the qualities of the intensive definition occur.

Ostentation, a common technique in conveying extensive definition, is the act of pointing out the cases to which the intensive definition applies or does not apply. For example, on the CBS Evening News broadcast of July 6, 1999, Dan Rather reported, "The Church of the Creator is a church in name only." And in banning the spiritual group Falun Gong, the Chinese government redefined it as a cult. Pointing out examples of a concept implies that the shared qualities of the examples constitute the semantic features, or the intensive definition.

In common western approaches to press theory, the press defines what is unusual or newsworthy. Journalism students learn conceptual definitions of news values, which are abstract concepts. Then they learn to recognize tangible manifestations of concepts. In other words, they learn the operational definitions the news-value concepts. Although values cannot be derived empirically, the western press can legitimately claim to be objective in selecting news values; the selections are empirical generalizations. Editors observe that readers tend to prefer certain content characteristics over others. Editors then select news items to which those characteristics apply. But these generalizations derive from readers' values in specific western cultures.

The press defines institutions and other components of society, including itself, according to both abstract attributes and tangible characteristics. Through the press, people learn the extents and limits of political, social, economic, religious and other institutions. In order to separate the state from the church or the market, or to relate them, people must be able to distinguish among them. In defining institutions, the press draws distinctions. When the press reports on political parties, for example, the types of organizations covered and the kinds of activities reported define political parties.

The press also defines institutions, including itself, according to their roles, functions and areas of competence within acceptable limits, reporting both the improbable and the expected. Both serve to reinforce definitions of institutions as concepts. Reporting the improbable tells people what falls outside the limits of institutional roles and functions, what ought not happen. Reporting the expected reinforces and ratifies what falls within the limits of institutional roles and functions. Through reporting the improbable and the expected, the press gives "extensive" definition to institutions, that is, to what extent institutions may properly act. The extensive definitions of concepts not only illustrate when concepts occur, but also when they do not occur. With associational statements, the press reports the degree to which concepts occur together, or to which one concept occurs in the absence of another. And causal statements tell which concepts cause the existence of which other concepts.

Besides defining institutions, the press compares them to reveal similarity and contrasts them to reveal difference. But similarity and difference by themselves serve only to clarify definitions. Relational statements address the implications of component similarities and differences. Using relational statements about the existence of one concept, the press conveys information about another concept. Schiller implicitly recognized relational statements in discussing the balance between the corporate perspective, and farmers', labor and civil rights organizations (Schiller 1993).

Examples of the foregoing statement types occur often in the western press, which claims objectivity as an ideal. Even in apparently unambiguous existence statements, however, any asserted objectivity is arguable. As a practical matter, human communication involves the process of abstracting, or neglecting certain details. For example, we may make an existence statement concerning oxygen, confident in a clear, unambiguous definition. Yet we neglect the relational statements concerning the actions and reactions of oxygen in its environment. We may speak of a sphere without ambiguity, but its existence is only subjunctive, imaginary, unless it has tangible properties we have neglected to mention. The same process of abstracting also applies to labor unions, political parties, and other institutions.

In expressing informal theories, the press implies the forms, such as the set of laws form (Reynolds 1971, 83-92) concerning culture. The sets of laws may be empirical or normative; they may describe or prescribe. But in general, they serve to classify and organize phenomena. A conservative press, or one that serves established interests, may tend toward description; a liberal or reform press may tend toward prescription. The behavior of the press itself is included within the sets of laws. Press behavior is itself a statement about relationships with other institutions. Independent implications or direct assertions about institutions from the press entail that the press may make such independent implications or assertions. In defining independently the set of laws, whether descriptive or prescriptive, the press takes a certain position relative to other institutions.

The game "rock, scissors, paper," used to select the primacy of contestants, illustrates simply the set-of-laws theory form. The game defines the superiority of object one over another according to specific laws that prohibit the possibility of equality between any two objects. The set of laws that the press implies has no such prohibition. Therefore, the press may imply equality or superiority of one concept in relation to another within the set of laws. The press distinguishes which concepts are rock, which are scissors, and which are paper. The set of laws form allows the press to predict and explain.

The press may imply the axiomatic theory form (Reynolds 1971, 92-97) concerning political systems, for example. With an implied set of if-then statements, the press can define political character: if freedom of thought, then freedom of expression; if freedom of expression, then freedom of political participation; if freedom of political participation, then democratic political system. This set is a brief example of an axiomatic form the press may imply. The press can utilize the axiomatic form for the sake of brevity; once established, when the press refers to a democracy, we can expect freedom of thought and all the other freedoms in between. And if the press observes freedom of thought, we may expect to find democracy. (I do not intend to say that all theories the press implies are correct.) This form of theory is implicitly applied to other kinds of institutions and phenomena. When Dan Rather described a group as a religion in name only, he implicitly referred to the axiomatic form of theory. He did not see the conditions requisite to classifying a group as a religion.

The press also implies the causal process form of theory (Reynolds 1971, 97-107). The most obvious example concerns the weather during the years 1999 and 2000. All of it is caused by La Niña, or the water temperature in the Pacific Ocean. But in that case, the press reports on an explicit causal process form from the scientific community. In other matters, the western press tends to limit itself to proximate causes, that which immediately preceded a newsworthy event. However, when reporting updates on the consequences of past newsworthy events, the press often implies causal process. For example, reports on contemporary South Africa discuss how many expectations at the end of whites-only rule remain unfulfilled. Other reports discuss the economic miracle in Taiwan of the financial crises of other Asian nations. Such reports imply the causal process form.

Two communication aspects

Messages in human communication have a content aspect and a relationship aspect. The content aspect concerns information, or what the message is about; the relationship aspect concerns how the message is to be taken (Watzlawick and others 1967, 51-2). The content of the message may be about anything: truth or fiction, fact or opinion, abstract or concrete. The relationship aspect implies a discourse between communicants that establishes associations and separations. Within messages, communicants use content to identify with some concept or idea and to "disidentify" with some other concept or idea (Perinbanayagam 1991, 13). And through that process, communicants express a basic relationship of either unity or segregation (Simmel 1971, 297).

The content aspect press communication resides in the objectively verifiable facts[1] and normative assertions presented as fact. Opinions are content because the existence of opinions are fact. The following are examples of objectively verifiable facts: the legislature passed a law; the city had three inches of rain yesterday; a public figure advocated a policy; the pope said mass on Christmas day. Any objective observer could verify those facts. The following are examples of normative assertions presented as fact: the legislature should not have passed a law; the city needed three inches of rain; a public figure has courageously advocated a policy; people should celebrate along with the pope.

Relationships have their bases either in equality or difference, and the corresponding communication patterns are either symmetrical, minimizing difference, or complementary, maximizing difference. The complementary relationship has two positions. One is superior, primary, a step above; the other is correspondingly inferior, secondary, a step below. The two positions do not imply evaluation, potency or activity, i.e. good or bad, strong or weak, active or inactive (Watzlawick and others 1967, 68-9). However, the communication recipient may infer those qualities and others as well.

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[1] The press may report objectively verifiable facts in a way that is not objective. The selection of objective facts is a subjective choice.

In response to implicit assertions about a relationship, a receiving communicant may confirm the assertion, reject or disconfirm, i.e. ignore, the assertions. Confirmation may take such forms as continued patronage, conferred or ratified status, or official favors. Rejection may take such forms as discontinued patronage, interference with publication, threats against publishers and writers, or "disappearances." (Let the reader note that in a case of rejection such as the last, this would be no mere academic discussion.) Disconfirmation, i.e. ignoring the asserted relationship, is formless and, therefore, difficult to observe, since we cannot show definite evidence of nothing. However, in the absence of either confirmation or rejection, we may suspect disconfirmation.

Number in relationships

We can classify relationships expressed through the press as monadic, dyadic or triadic. These categories correspond only roughly to first, second and third person expressions. Monadic relationships are reflexive, concerned with how a group views itself. Dyadic relationships are those in which publishers, editors or writers, distinguish themselves from readers, or affiliate themselves with one group that distinguishes itself from another, or distinguish themselves from affiliated groups. Triadic relationships are those in which publishers, editors or writers distinguish themselves from two groups that distinguish themselves from one another.

As evidence of a monadic relationship, we can look for indicators that publishers, editors or writers affiliate themselves with readers in matters of group cohesion, norms or action. As evidence of a dyadic relationship, we look for indicators that publishers, editors or writers distinguish themselves from readers with or without an affiliation with a third group, or affiliate themselves with readers and distinguish themselves from a third group concerning group cohesion, fragmentation, identification or disidentification. As evidence of a triadic relationship, we look for indicators that publishers, editors or writers distinguish themselves both from readers and from a third group that is also distinguished from readers.

In one sense the monadic relationship is not a relationship at all, since it is reflexive; a concept cannot have a relationship with itself. Yet we include this relationship category for three reasons. First, we want our categories to be exhaustive. Second, group affiliation identity, definition and affiliation imply a relationship with whoever is outside the group. Third, group identity, definition and affiliation may depend upon role relationships within a group, i.e. some members may be more equal than others. The monadic relationship might intuitively seem to be symmetrical. I leave open the possibility of implicit complementarity in monadic relationships.

The possibility of either symmetrical or complementary dyadic and triadic relationships may seem more intuitive. One group may have greater knowledge or influence than another. One group may depend on another. Or one group may see itself as having greater knowledge or influence. Another may see itself as dependent. And those views may be accepted, rejected. or ignored by other groups. Conflicts may arise between when groups disagree about their relationship, and when changes disturb symmetry or complementarity.

Conflicting theories

The NWICO debate itself is an example of rejecting theoretical assertions about a dyadic, complementary relationship. Western nations have rejected third-world efforts to define relationships through UNESCO. To accept third-world right to define would require accepting that the third-world has a superior position in a complementary relationship. Third-world nations often disagree with that view, asserting that defining relationships within their own countries would mean a symmetrical relationship with the west. What they reject is the right of other nations to define relationships within their countries.

Although global communication often involves greater aggregate concepts of nations, those concepts are composed of smaller constituent groups. Those who address pluralism in the press, a more just distribution of voices, address the disconfirmation of constituent groups. When the press fails to make existence statements concerning any group/concept, the press disconfirms the basic condition necessary for any relationship with any other concept: the fact of its existence. Representing the culture which engendered it, the press disconfirms that which it ignores. The press disconfirms when a concept is either so foreign as to be undefined, or not distinct enough to merit confirmation.

Terrorist groups are examples of disconfirmed groups that take the stage by committing acts that few cultures can ignore. Once they have taken the stage, they enter into cultural discourse. The press assigns the categorical definition of "terrorist," which entails certain characteristics and attributes, an intensive definition. The group becomes part of the "terrorist" extensive definition. The relationship between terrorist groups and other institutions is complementary. According to the press, terrorists groups are very much in an inferior position to other institutions, including the press. According to a terrorist group, it is very much in a superior position because of its ability to control the relationship. It can even compel the press to give it a voice. The press can no longer disconfirm the terrorist group.

But the press and the culture it represents still control concept definition. Critical theories emphasize developed countries' global influence through western media models. The press and media define institutions and relationships, which requires separating institutions according to function and areas of competence. Intensive and extensive definitions spread from the west to LDCs through mass communication (Winseck 1997, 223). But the definitions that apply in developed countries may not be appropriate in less developed countries. The critical concern has been that the press, and other media institutions, should reflect relationships defined by the cultures within which they operate, as they do in developed countries.

Such concerns often assume or accept the necessity of cultural unity within geographic boundaries, an assumption or acceptance that consequently determines the character of communication theories. Western thinking often rejects that assumption. Further, within any country at least four cultural dimensions--social, political, economic, and religious--seek expression through the press. And within each of those dimensions, different viewpoints seek to define and unify the culture.

Implications and applications

The so-called free press is a myth; although free of regulation, the press is always constricted by the culture within which it operates. Cultural theories are manifest in the press. Of all data available, the press selects those that reduce cultural uncertainty. If information is that which reduces uncertainty (Attneave 1959, 1), the global free-flow of information should mean a global uncertainty reduction. But what reduces uncertainty in one culture often increases uncertainty in another culture. Therefore, the global free-flow of information is also a myth.

The free-flow of information reinforces a complimentary relationship since it gives a strong advantage to dominant communicators. The dominant culture defines the relationships among institutions. If the dominant culture is democratic, one might wonder what would threaten any national sovereignty. But democracy entails that all voices at least have the opportunity to be heard. And democratic institutions can take many forms, not just those found in a dominant democratic culture. The relationships that dominant cultures define as complementary, other democratic cultures may define as symmetrical. The sets of laws governing social components vary with culture.

Proponents of western models, emphasizing communication content, assert an objectivity independent of any relationship. Their view asserts that content is neutral, and that readers infer relationships through readers' interpretations of content. But readers' inferences are a function of culture. In reporting within a single culture, the press defines concepts and suggests relationships between them according to the rules of that culture. The press reports when institutions or people act within the bounds of acceptable limits, and when they have gone beyond those limits. Much more data come to the attention of the press than the press can process. So the press relies on cultural inferences and probabilities derived from references to culturally diffuse associational and causal statements.

The emic perspective--subjective, experiential, involved and idiosyncratic--often applies to reporting within cultures, even with serious attempts at objectivity, because data interpretation is grounded in cultural presupposition. The meaning of data depends upon context, regardless of whether the language used is high- or low-context. Greater cultural understanding of context allows the appearance of objectivity. Therefore, what appears to be an etic approach--objective, analytical, detached and universalist--actually requires subjective experience and cultural contact to convey meaning. Without cultural context, data can be meaningless at best, misleading and false at worst.

Conceptual definitions often to not apply across cultures. Neither do the relationships between concepts. Although it is entirely appropriate for the press to define concepts and discuss the relationships between them, reporting across cultures contaminates the process. A foreign culture defines institutions according to its own characteristics and attributes. In similarities and differences between institutions, the foreign culture discusses implications as though they were found in the foreign culture. The relationships are not between the institutions in the host culture, but between foreign culture institutions and host culture institutions. Therefore, the reported relationships are hypothetical.

The press organizes the data that illustrate how its culture organizes the world, according to cultural values. Editors select data according to how the believe readers will interpret data. In other words, editors select content based upon the relationship that the data are likely to convey. In some cases, the specific content is irrelevant. For example, When defenders of a U.S. president accuse the U.S. press of attempting to bring down the president, they may be partly correct. Through reporting facts, the press reiterates its complementary relationship between press and president, with the press in the superior position as "watchdog."

Within U.S. culture, the press may bring down a president, but a president may not bring down the press. The president accepts a position subordinate to the press and people in a complimentary dyadic relationship. However, when the U.S. press applies the same procedures in reporting on a foreign head of state, the press implies a similar relationship. A state likely will reject that relationship; a superior U.S. press, representing U.S. people, violates that state's sovereignty. Attempts by a foreign state to redefine the relationship according to its own culture violate the U.S. cultural definition of a free press.

The importance of culture in understanding media content challenges the notion that western cultures are low-context cultures (Porter and Samovar 1994, 23). The orientation of the western press, emphasizing content, requires cultural context for understanding. Culture as disseminated by the press, provides the theoretical framework with which people organize content. Without culture, press content would have less meaning than the residential listings in the telephone directory. Even the telephone directory can be meaningful if one knows how to look for patterns and exceptions to patterns. And culture provides the knowledge of context that gives meaning to press content as patterns or exceptions to patterns.

Content is a commodity, a product offered for sale. In its ideal form, the sale occurs as an exchange of ideas. But as the press has become an important business, content has become a commodity in the strict economic sense. Editors select data that have the broadest possible market potential. The sale of content as commodity carries the same hazards as the sale of any other commodity. Producers often assume that people throughout the world have the same needs. Although they may be essentially correct, they ignore the fact that different people satisfy those same needs according to different cultural specifications.

Many critical studies have referred to the imbalance in media ownership as prima facie evidence of cultural dominance. But ownership may be irrelevant if media professionals are aware of and open to the idiosyncrasies of the cultures within which they operate. They may learn from marketers who increasingly recognize the importance of building relationships. The debate about using an emic or an etic perspective is familiar to those involved in international marketing. What is less familiar, though its familiarity is growing, is that marketing is essentially about relationships.

This article addresses "the importance of encouraging cross-sultural competence among journalists" (McNelly 1999). This approach to the press as a theory creating activity applies to intranational groups as well as to international groups. In fact, the challenge for professionals may be greater within a country because of cultural conditioning. A concept that is culturally defined may not be critically examined, and its relationship to other concepts may not be recognized. We have seen the difficulty in changing how a dominant culture defines a racial group, for example, or a religious group, or women. Even when the press has recognized the need, cultural restraints have defined and restricted the process of redefinition.

Professionals may progress toward actual press freedom when they recognize and set aside their cultural constraints. Differences in institutional characteristics, attributes, roles and functions may not be obvious across cultures. Editors and reporters can better serve society by developing cross-cultural competence to insure accuracy of content. In selecting content, professionals should be aware of cultural interpretations and implications of relationship, especially those that constitute selection criteria. The implicit relationship between the press and other social concepts sets the foundation for reporting. Practitioners may reject a subordinate, complementary relationship, and they may be rejected in asserting a superior, complementary relationship. The symmetrical relationships likely to be most productive; it is neither overbearing nor submissive.

Scholars may progress toward a better understanding of social systems when they view the press as defining social concepts and their interrelationships. The press within countries throughout the world has exhibited changes that reflect changes in their supporting cultures. The press has redefined concepts and relationships, sometimes as an innovator, other times as a laggard. Groups and institutions have given their own voices to the press at times. At other times, the press has given its voice to groups and institutions. In monadic relationships, groups and institutions have spoken to themselves through the press. In dyadic and triadic relationships, they have spoken to others, and others have spoken to them. They have asserted relationships explicitly and implicitly. Press history and actual practice offer scholars opportunities for empirical comparisons unaffected by normative assumptions.

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Media Influences on Voter Learning, Cynicism, and the Vote in an Off-Year Issue Election

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Media Influences on Voter Learning, Cynicism, and the Vote in an Off-Year Issue Election

Abstract

This study examined the influence of campaign news and advertising media on voter knowledge, cynicism and voting in a 1999 issue election. It also compared the patterns of association between three measures of vote behavior—vote likelihood, self-report vote, and actual vote—and demographic, political, and media variables. Two cross-sectional telephone surveys were administered—one month before the vote and the other immediately after the election. Hierarchical multiple regression models were tested. Attention to all of the campaign media predicted knowledge about the dominant issue on the ballot at the beginning of the campaign, but only attention to newspapers predicted knowledge at the end of the campaign. Attention to TV news stories predicted less cynicism for the first sample but watching the evening local TV news predicted more cynicism for the second. The patterns of association for vote likelihood, self-report vote, and actual vote varied substantially, suggesting that the former two are poor indicators of the latter.

Media Influences on Voter Learning, Cynicism, and the Vote in an Off-Year Issue Election

Most media studies on voter learning, attitudes, and behavior focus on national or state-wide candidate-centered campaigns, either on U.S. presidential campaigns (e.g., Chaffee & Schleuder, 1986; Chaffee, Zhao, & Leshner, 1994; Drew & Weaver, 1998; Hollander, 1995; Martinelli & Chaffee, 1995; Weaver & Drew, 1995) or on US Senatorial campaigns (e.g., Leshner & McKean, 1997; Weaver & Drew, 1993; Zhao & Bleske, 1995). Candidate campaigns generally generate large amounts of media attention because candidates spend ever-increasing sums of media dollars and because such campaigns involve prominent personalities. Few studies, however, have focused on the influence of media on knowledge about issues on a ballot in non-candidate elections (Leshner, 1995; Leshner, 1996; Stamm, Johnson & Martin, 1997). Ballot elections have often been overlooked even though ballot issues can have immediate tangible effects on citizens' daily lives.

The purpose of this paper is to explore the influence of news and advertising media in the context of an off-year, off-season issue referendum, in which few candidates were running for local office, and those that were, were greatly over-shadowed by a single ballot issue. Such influences of campaign media were measured on citizens' knowledge about the dominant campaign issue, their attitudes about politics, and on three different measures of voter behavior: respondents' estimates of their vote likelihood, their self-reported voting behavior, and their actual voting behavior.

The research reported here occurred in an April 1999 statewide election in a midwestern state in which voters were asked to decide whether or not to allow citizens to carry guns in public. This ballot issue, the so-called "concealed weapons" issue, was a statutory referendum. If passed, the bill would have allowed citizens at or over the age of 21 to apply for a license to carry a concealed weapon. The particulars of this election posed a unique set of circumstances in which to examine the role media could play in an issue election.

Many citizen responses have been hypothesized to occur as a result of news media coverage and television advertising in political campaign contexts. Scholars have long been concerned about the perceived effect of television news on political knowledge and voter behavior. On the one hand, television news has been seen as an ineffectual source of political information (Patterson & McClure, 1974), while on the other, it has been described as a powerful negative force that turns citizens into cynical, passive spectators rather than active participants (Ranney, 1983). Campaign advertising, especially when negative, has been thought to increase political cynicism among the electorate (Agger, Goldstein, & Pearl, 1961; Cappella & Jamieson, 1997; Rogers, 1974), and has in turn, been implicated in decreasing voting probabilities (e.g., Ansolabehere & Iyengar, 1995; Ansolabehere, Iyengar & Simon, 1999; Ansolabehere, Iyengar, Simon, & Valentino, 1994; Lemert, Elliot, Bernstein, Rosenberg, & Nestvold, 1991). Because of their possible importance in a generalized process of political alienation, voter learning, attitudes, and voting behavior were examined in the present study in terms of the impact that news and advertising media had on them. The following literature review examines, (1) the impact of political news media on knowledge and cynicism, (2) the effects of political advertising on voters, and (3) research on voting. The relationships suggested based on this literature are then tested in two cross-section regional telephone surveys of known voters and non-voters. The first survey was conducted one month before the April 1999 election and the second immediately after.

News Media Research

With respect to particular media channels, the literature on media use and voter learning has often pitted newspapers against television. Although findings have been mixed for television, there seems to be a general acceptance that exposure and attention to newspapers leads to increased voter learning (Chaffee & Hochheimer, 1985) and trust in government (Becker & Whitney, 1980). Television news, on the other hand, has often been criticized as a poor information source because it offers information in simplified news summaries and focuses on candidate images more than issues. As such, television news is often regarded as not conducive to active information processing and memory recall (DeFleur, Davenport, Cronin, & DeFleur, 1992; Robinson & Davis, 1990; Robinson & Levy, 1986; Stauffer, Frost, & Rybolt, 1981; cf. Wicks & Drew, 1991). Issue and policy learning are thought to depend more on central/active cognitive processing, which is more closely associated with newspaper reading (Neuman, Just, & Crigler, 1992).

The variations in findings concerning media effects on knowledge have been attributed, in part, to the use of different measures (attention vs. exposure), distinct campaigns (presidential elections, off-year elections, regional differences, etc.) and variations in media studied (newspapers, TV news, TV ads, radio and nontraditional media).

Chaffee and Schleuder (1986) demonstrated that to capture TV media effects on public affairs knowledge, it is important to measure attention rather than to rely solely on the more general measure of media exposure. In fact, the authors found that attention to television was a stronger predictor of knowledge than newspaper attention. Martinelli and Chaffee's (1995) research on issue knowledge of newly naturalized citizens (to control for prior knowledge) supported use of attention measures to get at TV effects.

Drew and Weaver (1998) encountered no significant relationships between media exposure/attention and knowledge of candidate issue positions in the 1996 presidential election. Television news, however, was the strongest predictor of the media variables. In a study that employed two cross-section samples, Leshner and McKean (1997) found that using TV news for information about politics and public affairs was positively associated with knowledge about candidates at Time 2 while newspaper exposure was not. Weaver and Drew (1995) investigated exposure and attention to news media in the 1992 presidential election and detected that local and national TV news exposure were the only predictors of greater issue knowledge. Conversely, in their study of issue knowledge and senatorial candidate policy platforms, Weaver and Drew (1993) found that TV news did not predict issue knowledge. Stamm, Johnson, and Martin (1997) also concluded that neither television exposure nor attention added to political knowledge about the Republican Contract with America. Hollander (1995) examined nontraditional news media in the 1992 presidential campaign and found that television talk shows predicted actual and perceived campaign knowledge whereas attention to MTV was negatively related to actual campaign knowledge (similar to Chaffee et al's, 1994 findings for nontraditional media). Leshner (1996) found that attention to television did not predict issue knowledge during a 1994 off-year election, but that attention to newspapers did. Particularly with respect to the impact of television news, the literature is unclear as to its impact on voter issue learning. Attention to newspapers, as found in the bulk of prior research, should be positively associated with knowledge about the issue. The prediction regarding the relationship between TV news attention and issue knowledge is less certain.

Political Advertising

The role of political advertising has largely been researched in terms of its influence on four dependent variables: attention, knowledge, attitudes toward ad sponsors and opponents, and vote likelihood. In recent research, those concerned with a purported loss of democratic values and citizen participation in the U.S. have looked closely at the role of political advertising, particularly ads that attack the opponent (e.g., Ansolabehere et al., 1994; Ansolabehere, Iyengar & Simon, 1999; Basil, Schooler, & Reeves, 1991; Cappella & Jamieson, 1997; Denton, Thorson, & Coyle, 1995; Johnson-Cartee & Copeland, 1989; Lemert et al., 1991; Perloff & Kinsey, 1992; Stewart, 1975; Wattenberg & Brians, 1999). Indeed, since the 1988 presidential race, when political pundits suggested that negative political ads won the race for Bush, the role of attack ads has become the focus of many studies.

Weaver and Drew (1993), in their study of a 1990 U.S. Senate campaign, found that TV ads increased voter issue knowledge in both their statewide and city samples. Martinelli and Chaffee (1995) also found that recall of TV ads was the strongest predictor among media variables for issue knowledge. Zhao and Bleske (1995), in comparing ad attention to news attention in a 1990 senatorial election, found that the results depended on whether exposure or attention was measured. When attention measures were used, ads predicted more knowledge than TV news, although TV news also added to knowledge. When exposure measures were used, ads and news were equally effective when there were no controls, but when controls were added, ads were more effective. Chaffee et al. (1994) did not find any significant relationship between TV ads and voter knowledge.

TV ads have been studied because there exists a fear on the part of researchers that negative ads may lead to cynicism and decreases in voter turnout. Findings on the effects of negative advertising in candidate elections (Stewart, 1975; Tinkham & Weaver-Lariscy, 1993) suggest that going negative does not necessarily deter voter participation. Stewart suggests that mud-slinging candidates can be successful if they are viewed as the best choice, their opponent does more mud-slinging, or if the candidate has a stronger image going into the election (e.g., an incumbent). In an experiment, Tinkham and Weaver-Lariscy (1993) found that if an ad was negative, yet evaluated as credible and stimulating, its overall effect was positive.

Voter Research

In addition, this study examined vote likelihood and self-reported vote, and compared these variables to that of actual vote. Of interest is the validity of the self-report data used in most voter studies.
To do this, we compared actual vote records to self-report vote data.

The problem of over-reporting voting behavior in survey research is not new. The range of false claims of voting in post-election surveys has varied between approximately 5 and 30 percent (Sigelman, 1982; Silver,

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Abramson, & Anderson, 1986; Traugott & Katosh, 1979). Recently, however, Wanta, Lemert, and Lee (1997) found that over 50 percent of non-voters in their survey falsely claimed to have voted in an Oregon mail ballot election. Interestingly, they found few differences between the group that accurately reported their vote behavior and those who inaccurately reported that they had voted. One notable exception was that inaccurate respondents were more likely to feel cynical about politics and government than the accurate respondents were.

Early studies on the validity of survey research of voting behavior focused on the "interview effect" on turnout. Yalch (1976) indicated that pre-election interviews using campaign-specific questions led to increased voter turnout, but had diminishing effects after the particular election was over. This provided support for a ***stimulus hypothesis***, which predicted that interviewed groups would have higher voting rates than a control group with the increased rate sustained only for the group that was asked non-campaign specific questions. Traugott and Katosh (1979) examined 1964, 1972 and 1976 National Election Study survey data and found support for the stimulus hypothesis and further elaborated that there was a cumulative effect that should concern researchers who use panels studies. In effect, those who participated more often in the interview study had higher turnout rates. The authors were also concerned with the number of respondents who misreported their registration and vote. Findings indicated that 14% of the sample misrepresented their actual vote. Those who misreported their vote, according to the researchers, were younger, nonwhite, and from low-income groups.

Researchers have challenged these findings (Silver, Anderson and Abramson, 1986; Granberg and Holmberg, 1991) asserting that the determining characteristic of over-reporters is their higher educational level. Silver, et al. (1986) found that educated voters, those whom one would expect to be more likely to vote, were more likely to say they voted when indeed they did not. Granberg and Holmberg (1991), in their study of Swedish voters, found much the same results. However, their findings also showed that when compared to true (actual) voters, false voters read less about politics and were thus less knowledgeable about politics. True voters were found to be highly interested in politics, read more about politics and strongly identified with a political party. Furthermore, for people who did not tell the truth about voting, their past voting behavior was a better predictor of actual voting behavior rather than the interviewees' self-report vote. For people who told the truth about their voting behavior, vote likelihood was a better predictor of actual vote versus past voting behavior.

More recently, Leshner and Thorson (2000, in press) found 13% of their sample falsely reported they had voted. They detected an indirect but significant and positive influence between those who thought the campaign was negative and ***increased*** voter turnout.

These findings have important implications for those conducting survey research on voting behavior. Here the relationships between the three measures of voting behavior (vote likelihood, self-report vote and actual vote) and exposure and attention to news and advertising media are examined.

Campaign Context

Conditions surrounding the ballot issue studied here allowed for good measures of media effects on issue knowledge because the referendum was covered in a variety of local and national news media. The most prominent issue on the ballot concerned the right to carry concealed weapons – a highly-charged and hotly-debated issue. In this particular issue vote, information campaigns were waged on at least two sides of this issue. Therefore, it is very likely that citizens relied on the media for much of their information related to this issue.

The referendum was the first in the country to allow state voters to decide whether or not to permit the carrying of concealed weapons (Marshall, 1999). The state House Bill 1891 would have provided that state residents 21 and older could apply for a license to carry a concealed weapon. For six years, the state Governor had sworn not to sign the legislation, so the bill's sponsor agreed to present it to the state's voters (Corrigan, 1999).

At the time, 31 state legislatures had already legalized use of concealed weapons. The state's election was considered an opportunity for the National Rifle Association (NRA) to gain more ground nationwide (Marshall, 1999). One of the state's city police officers' associations was divided on providing support for the measure and there were accusations of false advertising and misrepresentation of police officer support made against the police officers association (Corrigan, 1999). Non-member officers charged that the association's leaders were hoping for NRA financial backing to pursue advantages for its members. According to the *Los Angeles Times* (1999), the NRA provided more than $3.7 million in funding to support the measure. The National Rifle brought in its president, Charlton Heston, to campaign for the measure in the state's two largest cities. The state's governor publicly opposed the measure, while one of the state's US senators (who will run for re-election in November 2000 against the current governor) publicly supported it. Ultimately, the referendum was defeated 52% —48%, largely due to voters from large urban areas.

There was substantial controversy over two television ads, one from each side. The pro-concealed weapons campaign aired an ad featuring a victim of a widely-publicized multiple rapist in the state's largest city. In the ad, the victim asked the audience for the "right to protect myself." The basis for the ad claim was criticized as the crime occurred in the woman's home and citizens can legally have guns in their homes. Thus, as tragic as her experience was, the proposition would not apply to her particular situation. This ad was subsequently pulled. The other ad showed an Uzi carbine rifle that, during the voice over, slowly turned so that at the ad's end, it was pointed directly at the viewer. The voice-over talked about an "Uzi semiautomatic pistol." The gun shown was already illegal under federal laws, and thus, the proposition would have had no impact on this gun's legal availability. This ad was eventually pulled as well. Both ads were critiqued in the state's largest newspaper (which circulates in the sample county) and on the local television stations, which may have increased negativity in the electorate.

Method

A trend study was conducted by sampling and surveying two cross-sections of registered voters in a small television market. Because April elections traditionally generate low voter turnout and because we were attempting to get about 50% voters, the sample was drawn from the list of voters who had voted in the previous November 1998 election. The first cross-section was surveyed March 1—8, 1999, (at the beginning of the campaign) and the second immediately after the April 6, 1999, election for one week (April 7—14). Telephone interviews were conducted for both cross-sections (Time 1 N=559; Time 2 N=606).

Interviews were conducted by a professional research survey center at a large midwestern university (Time 1 N = 258; Time 2 N = 255) and by an undergraduate research methods class at the same university (Time 1 N =301; Time 2 N = 351). The students were trained by a research center staff member before they conducted the interviews. Students surveyed only residents in the county's dominant city, while the survey center surveyed both city and out-county residents. Because the two samples differ somewhat on a number of demographic variables, the validity of the students' samples cannot be directly checked against the survey center's samples. The students' samples closely aligned with the distribution of known demographic variables, but there were some differences between the survey center's and students' samples. For example, the students' samples were slightly older (mean age=51 vs. 48, $p < .05$), more educated ($p < .05$), and had higher income ($p < .001$), all of which reflect known distributions of city/county demographics. Also, the students' samples read the newspaper more often ($p < .001$) and were more likely to vote ($p < .05$). Although the students' samples scored higher on political knowledge than did the survey center sample Time 1 ($p < .05$), the difference evaporated at Time 2. The samples did not differ on level of cynicism, ideology, political interest, campaign attention, watching local TV news at 6 or at 10, or on actual vote at either Time 1 or 2.

The advantage of employing two cross-sectional samples rather than one is two-fold. First, it allows the measure of knowledge gain between the samples, if any, during the course of the campaign. Second, it allows the comparison of respondents' values on items that would not be expected to change during the course of the campaign (i.e., the demographic variables used in this study). This provides an indication of the degree to which the two samples are comparable and increases our confidence that any significant difference between values for a given variable between Time 1 and Time 2 is attributable to the campaign. If a single cross-sectional sampling design was employed, then we would be less able to distinguish a campaign effect from phenomena that existed prior to the survey or to the campaign.

Dependent Measures

Political Knowledge. Measurement for *political knowledge* was a summed index of seven items representing information carried prominently by both newspaper and television news about the concealed weapons issue. Three questions asked about specifics of the concealed weapons ballot measure (hours of handgun safety training required; cost of concealed weapons permit; length of time permit would be valid before it expired). Four questions asked about publicly stated endorsement stances (governor, one US Senator, National Rifle Association, and state police chief's association). Respondents received one point for each correct response and zero points for either an incorrect response or for failing to respond.

Political Cynicism. Political cynicism was a mean index of four items representing respondents' beliefs about politicians (Time 1 Cronbach's alpha = .74, eigenvalue = 2.27, 56.7% of variance; Time 2 Cronbach's alpha = .78, eigenvalue = 2.41, 60.2% of variance). Respondents were read four statements about politicians and asked if they strongly agreed, somewhat agreed, somewhat disagreed, or strongly disagreed with each. The four statements were: 1) Many politicians really try to represent the interests of the people, 2) Politicians are usually honorable people who are dedicated to public service, 3) Many politicians' votes are for sale to the highest bidder, and 4) Many politicians are motivated by greed. Respondents who agreed with statements 3 and 4 and disagreed with statements 1 and 2 scored higher on the cynicism scale.

Vote Measures. ***Vote likelihood*** was asked of respondents at Time 1, "On a scale of one to five, where one is very unlikely and five is very likely, how likely is it that you will vote in the April 6 election?" ***Self-report vote*** was asked at Time 2, with simply, "Did you vote in the April 6 election?" ***Actual vote*** for respondents at both Time 1 and Time 2 was obtained from the official voting records supplied by the county clerk. Eighty-four percent of the sample at Time 1 voted and 80% of the Time 2 sample voted.

Independent Variables

The demographic variables for each cross section were measures typically used in surveys of this type: ***education, age, income, race,*** and ***gender.*** Only 7% of the entire sample identified themselves as a race other than white. Therefore, race was dummy coded was non-white (0) and white (1).

Political variables included party identification, ideology, political interest, and attention to political campaigns. Respondents were asked to describe their political identification as Democratic, Republican, Independent, or other. ***Ideology*** was recorded as the response to "We hear a lot of talk these days about liberals and conservatives. Where would you place yourself on a scale of one to seven, where one is extremely conservative and seven is extremely liberal?" ***Political interest*** was recorded on a 4-point scale as the response to "Overall, how interested are you in politics? Would you say a lot, some, a little, or not at all?" ***Attention to political campaigns*** was recorded on a 4-point scale as the response to "Would you say you pay attention to political campaigns a lot, some, a little, or not at all?"

Media exposure questions asked respondents "In general, how many days a week do you read a local newspaper?", "In general, about how many days a week do you watch the local six o'clock news on television?", and "In general, about how many days a week do you watch the local ten o'clock news on television?" .

Media attention questions asked respondents to indicate on a 4-point scale how much attention they paid to the concealed weapons issue via newspaper stories, TV news stories, and TV ads. These three items were anchored by "a lot" and "not at all."

Design

Hierarchical least-squares regression was the primary method of analysis in this study. Two sets of hierarchical regression equations were created—one for each cross-sectional sample—where the dependent variable was political knowledge. Two sets of equations were created where the dependent variable was political cynicism. Two sets of equations were created where the dependent variable was vote likelihood and actual vote for the Time 1 sample and self-reported vote and actual vote for the Time 2 sample. In all sets of equations, the demographic variables were entered as the first block for each equation. The second block for each equation consisted of the political items—ideology, party identification, political interest, and attention to campaigns. The third block consisted of three media exposure measures: newspapers, 6 PM television news, and 10 PM television news. The fourth block consisted of attention to the concealed weapons issue via newspaper stories, television news stories, and television ads. This model permits the examination of the unique contributions of the media measures to the dependent variables by controlling for the political and demographic variables. It also permits the comparison of patterns of prediction for the three different vote measures.

Results

Descriptive statistics were examined in order to evaluate the sampling procedures in the two cross sections. The percentages for the categorical variables—race, gender, party identification, and actual vote—appear in Table 1.

The percentages indicate that the samples in both surveys contained nearly the same proportion of respondents who described themselves as "white." There was a greater proportion of females in the second sample, however. There was also a greater proportion of Democrats in the second sample, apparently at the expense of Independents. It should be noted that declaration of party membership is not required in the state in which the survey was conducted in order to vote in primary elections, so that party identification does not have an "official" component that it might have in other states. This may partially explain the shift in party ID over time. The percentage of actual vote is extremely high in both samples, although similar. It should be noted, however, that the actual vote percentage for the population from which this sample was drawn (November 1998 voters) was 74.6%. This total may reflect a modest response bias: those who decided that they would vote or had voted were slightly more likely to respond to a survey about the concealed weapons ballot issue. The high percentage of voters is also indicative of the record turnout recorded in an off-year April election.[1]

Table 1: Percentages for Race, Gender, Party Identification, and Actual Vote at both Times 1 & 2

	Time 1 (N=559)	Time 2 (N=606)
Race (white)	93.6%	91.7%
Gender (female)	52.2%	58.6%
Democrat	30.1%	35.8%
Republican	30.1%	30.9%
Independent	31.7%	25.9%
Actual vote	84.3%	80.4%

Respondents reported that ballot issues, including the concealed weapons measure, were the most important reasons why they were voting in the election. At Time 1, 39% said that the concealed weapons issue was the most important reason they were voting. Another 39% named a different issue. Only 13.6% said that voting for a candidate (school board or city council election) was their main reason for voting. By the end of the election (Time 2) 56% reported they voted because of the concealed weapons issue. Another 27.6% named a different issue. Only 10% said that voting for a candidate was their main reason for voting. These data show that issues dominated this particular election.

Table 2 shows the descriptive statistics for the two continuous dependent variables (political knowledge and cynicism) and the independent variables (three demographic variables, three political variables, and six media variables) for both Times 1 & 2.

Political knowledge significantly increased between Time 1 and Time 2, but cynicism did not. The only other variables that showed an increase between the two samples were the attention to the campaign items through newspapers, television news stories, and television ads. All other variables showed no significant differences between the two samples, indicating that the samples are comparable for both Time 1 and Time 2, and the media use measures seemingly represent stable responses, at least during the time frame of this survey. The absence of change in cynicism from Time 1 to Time 2 is also important in that it suggests cynicism is an enduring trait and not merely a set of easily influenced attitudes that increase over the course of the campaign.

Table 2: Means and Standard Deviations of Knowledge, Demographic, Political, and Media Variables

	Time 1 (*N* = 559)	Time 2 (*N* = 606)
Dependent Variables		
Knowledge (0-7)	2.47^a	3.49^a
	(1.37)	(1.52)
Cynicism (1-4)	2.43	2.43
	(0.62)	(0.63)
Demographic Variables		
Education (1-10)	7.21	7.14
	(1.73)	(1.71)
Age (18-89)	49.81	52.39
	(15.09)	(15.64)
Income (1-6)	4.47	4.36
	(1.22)	(1.35)
Political Variable		
Interest in politics (1-4)	3.15	3.20
	(0.74)	(0.79)
Attention to campaigns (1-4)	3.15	3.23
	(0.77)	(0.77)
Ideology (liberal; 1-7)	3.91	3.98
	(1.40)	(1.44)
Media Exposure Variables		
Newspapers (0-7)	5.14	5.10
	(2.44)	(2.48)
Local 6 PM television news (0-7)	3.84	3.98
	(2.62)	(2.57)
Local 10 PM television news (0-7)	3.42	3.35
	(2.49)	(2.54)
Media Attention Variables		
Newspaper stories (1-4)	2.34^a	2.73^a
	(1.07)	(1.05)
TV news stories (1-4)	2.15^a	2.55^a
	(1.10)	(1.04)
TV ads	1.82^a	2.54^a
	(1.16)	(1.01)

Note: Cell entries are means and standard deviations (in parentheses). Range of responses for each variable is in parentheses. Means with the superscript *a* denote a significant difference at the $p < .001$ level.

The next analysis compared actual voting to self-reported voting, both measured for the Time 2 sample, and is shown in Table 3.

Table 3: Frequencies of Actual Vote by Self-Report Vote

		Actual Voting		
		Did not vote	Voted	Total
Self-Report Voting	Said did not vote	50	4	54
	Said voted	69	483	552
Total		119	487	606

X^2 (d.f. = 1) = 199.95, $p < .001$.

Respondents who reported voting and who actually voted constituted 79.7% (*N*=483) of the sample. Of those respondents who did not vote, 58% (*N*=69) falsely reported that they did. This was similar to Wanta et al.'s (1997) finding that slightly over half of the non-voters inaccurately claimed that they had voted in their survey during a mail-ballot election and less than the 74% reported by Leshner & Thorson (2000, in press). Vote likelihood showed a remarkably similar pattern X^2 (d.f. = 4) = 11.09, $p < .05$. Of the 481 respondents who said they were most likely to vote (responding "5" on a scale of 1 to 5), 13.7% did not vote. There were 11 respondents who responded that they were least likely to vote, yet seven of them voted.

To test the predictors of two of the dependent variables—political knowledge and political cynicism—a series of hierarchical multiple regression equations was used. The predictor variables were tested in separate equations in which the control variables were entered first into the regression equation. These results are shown in Table 4. Men were significantly more knowledgeable than women about the concealed weapons issue, but only by the end of the campaign. The politically interested, Democrats and Independents positively predicted issue knowledge at Time 2 as well. Watching the local 10 PM TV news was a negative predictor of issue knowledge at Time 1, but not at Time 2. That watching the 6 and 10 PM newscasts differ in this analysis suggests that respondents who tend to watch one cast are different than those who tend to watch another, and strongly argues against creating a local TV news summative index. Although the correlation between the two is relatively strong ($r = .46$, $p < .001$), it accounts for only 21% of the shared variance.

Table 4: Demographic, Political, and Media Use Variables as Predictors of Issue Knowledge and Political Cynicism at Times 1 & 2: Hierarchical Regression Analysis

	Issue Knowledge		Political Cynicism	
Predictor Variables	Time 1 (N=559)	Time 2 (N=606)	Time 1 (N=559)	Time 2 (N=606)
Education	.02	–.03	–.04	–.07
Age	.01	–.04	.00	.12**
Income	–.04	.08	–.05	.05
Race (White)	.07	.03	–.02	–.02
Gender (Female)	–.08	–.13***	.02	–.03
Incremental R^2 Block 1	*.02**	*.04****	*.01*	*.02*
Ideology (liberal)	–.08	–.08	.02	–.04
Political Interest	.02	.10*	–.04	–.13*
Attention to campaigns	.10	.08	–.04	.00
Democrat	.12	.16*	–.24**	–.21**
Republican	.09	.08	–.23**	–.18*
Independent	.10	.16*	–.13	–.03
Incremental R^2 Block 2	*.03***	*.05****	*.05***	*.06****
Newspaper	.03	–.02	–.07	–.10*
Local 6 PM TV news	–.06	.01	.02	.10*
Local 10 PM TV news	–.09*	.00	.03	–.11*
Incremental R^2 Block 3	*.02**	*.00*	*.01*	*.02***
Attn: Newspaper	.09*	.10*	–.08	–.03
Attn: TV News	.14**	.00	–.10*	–.08
Attn: TV Ads	–.14**	.02	.10*	.01
Incremental R^2 Block 4	*.03****	*.01*	*.02**	*.01*
Total R^2	*.10*	*.10*	*.08*	*.11*

$^*p < .05$; $^{**}p < .01$; $^{***}p < .001$.

Note: Cell entries are beta weights from multiple regression, final equation. The equation adds each listed variable to the equation shown in the previous block. Entries in italics are incremental R^2 and Total R^2 values for each. Total R^2 for the entire equations are shown at the bottom.

Of the media attention variables, attention to the issue through newspapers and TV news stories significantly predicted higher issue knowledge at Time 1, but attention to TV ads significantly predicted lower issue knowledge. At Time 2, only attention to newspapers predicts knowledge, such that paying attention to the issue through newspapers positively predicted issue knowledge.

Table 4 also shows the multiple regression results for political cynicism. Party identification measures (Democrat and Republican) were strongly associated with reduced levels of cynicism, as was age and interest in politics at Time 2. No media exposure measure was related with cynicism at Time 1, but exposure to newspapers and the local 10 PM TV news were negatively related to cynicism at Time 2, while local 6 PM TV news was associated with greater cynicism at Time 2. Paying attention to the issue through TV news stories was negatively associated with cynicism at Time 1, but attending through TV ads was positively associated with cynicism. None of the media attention measures were associated with cynicism at Time 2.

Table 5 displays the analysis for the dependent variables vote likelihood (Time 1) self-reported vote (Time 2), and actual vote (Times 1 & 2), and permits the comparison of the different vote measures. No demographic variable was significantly associated with vote likelihood. The lone demographic variable that predicted actual vote for the Time 1 sample was gender, such that males were more likely to actually vote than females. Having a conservative ideology was associated with greater vote at Time 2, but there were no other relationships between political variables and either vote likelihood or actual vote for the first sample. None of the media exposure items predicted vote likelihood, but counter to much research that suggests that watching television news discourages people from voting, watching the 6 PM TV news was positively associated with actual vote. Attending to the campaign via newspapers was positively associated with vote likelihood, but not with actual vote. Overall for the first sample, only one variable (attention to newspapers) was associated with vote likelihood, while three were associated with actual vote (gender, ideology, watching the 6 PM local news). Therefore, the patterns of correlates for the two vote measures—vote likelihood and actual vote—were different.

Table 5 also shows the multiple regression analyses for the Time 2 vote measures—self-report vote and actual vote. Race and income were associated with actual vote, but only race was associated with self-report vote. Ideology was associated with self-report vote, much like it was for actual vote for the first sample.

Table 5: Demographic, Political, and Media Variables as Predictors of Vote Likelihood, Self-Reported Vote, and Actual Vote at Times 1 & 2: Hierarchical Regression Analysis

	Time 1			Time 2
Predictor Variables	Vote Likelihood	Actual Vote	Self-Report Time 2	Actual Vote Time 2
Education	–.07	.03	.06	–.01
Age	–.03	.03	.02	.07
Income	.08	.02	.06	.14**
Race (White)	.06	.02	.09*	.15***
Gender (Female)	–.03	–.13**	.06	.06
Incremental R^2 Block 1	*.01*	*.02**	*.02**	*.05****
Ideology (liberal)	–.06	–.11*	–.09*	–.07
Political Interest	.05	.05	.05	.09
Attention to campaigns	.04	–.03	.06	–.06
Democrat	–.01	.02	.05	.08
Republican	–.11	–.04	.05	.04
Independent	–.06	.03	.05	.02
Incremental R^2 Block 2	*.02*	*.01*	*.03***	*.01*
Newspaper	–.02	.08	.13**	.07
Local 6 PM TV news	.05	.12*	.11*	.08
Local 10 PM TV news	.01	–.02	–.04	.01
Incremental R^2 Block 3	*.00*	*.02**	*.03***	*.02**
Attn: Newspaper	.15**	–.06	.01	.02
Attn: TV News	–.02	–.06	–.01	.04
Attn: TV Ads	.04	.04	.01	.08
Incremental R^2 Block 4	*.02***	*.01*	*.00*	*.01*
Total R^2	*.05*	*.06*	*.08*	*.08*

*$p < .05$; **$p < .01$; ***$p < .001$.

Note: Cell entries are beta weights from multiple regression, final equation. The equation adds each listed variable to the equation shown in the previous block. Entries in italics are incremental R^2 and Total R^2 values for each. Total R^2 for entire equations are shown at the bottom.

Perhaps the most striking differences between correlates of the two vote measures for the second sample were that newspaper exposure and exposure to the local 6 PM TV news were positively associated with self-

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report (indicating over-reporting vote behavior), but not with actual vote. No attention items predicted either vote measure for the second sample. Overall, only one variable (attention to newspapers) predicted vote likelihood, but three (gender, ideology, and watching the 6 PM news) predicted actual vote for the first sample. There were four significant predictors of self-report vote (race, ideology, newspaper exposure and watching the 6 PM news), but only two (income and race) for actual vote. Again, the patterns of correlates for the two vote measures—self-report and actual vote—were different for the second sample.

Discussion

This study sought to address two broad concerns with respect to political communication studies. The first was to examine the role the media may play in issue learning, political attitudes, and behavior in an election context that has thus far been under-studied. The second was to compare two very common measures of voting—vote likelihood and self-report voting—to actual voting as determined by official voting records, and to assess the validity of those measures by comparing the patterns of correlates with each. The data obtained in these two cross-sectional samples show some interesting results.

That respondents learned about the issue from paying attention to newspapers reinforces common findings in candidate campaigns. Respondents also learned about the issue when they attended to TV news stories early in the campaign, suggesting a positive role for TV news absent in findings from many previous studies. One reason why TV news attention may not have been associated with knowledge at Time 2 is because the majority of voters had made up their minds about how there were going to vote at Time 1. More than 77% of the sample made their vote decisions by the beginning of March. Another 14% reported that they were learning one way or the other. Hence, voters learned what they felt they needed to know about the issue early—most learning occurred before the introduction of the persuasive activities of the campaign. Perhaps the media functioned mostly to reinforce existing knowledge for the bulk of citizens. The negative association for TV ads at Time 1 with knowledge may be due to possible misinformation that may have been aired in some advertisements at the beginning of the campaign.

Respondents who attended to TV ads appear to have been misinformed during the beginning of the campaign, but that relationship vanished by the campaign's end. Perhaps the news media's efforts to analyze, and correct the misleading aspects of the TV ads served to reeducate respondents about those ads. They may also have signaled to both sides in the campaign that misleading ads would not go unchallenged during the campaign and may have forced both camps to ensure the truthfulness of their subsequent ads. This is evidenced by the finding that attending to TV ads was associated with higher cynicism at the beginning of the campaign, but not at the end. Further, attending to TV news was associated with lower cynicism at the beginning of the campaign, but not at the end. For whatever reason, attending to the campaign did not increase cynicism over the course of the campaign. Watching 10 PM news and reading newspapers were associated with less cynicism, but watching the local 6 PM news was associated with increased cynicism. This finding may reflect a boomerang effect for the evening news because of their adwatches.

Perhaps the most important finding here concerned the problem of false reporting of voting, a difficult and often unknown presence in survey research. Although the present sample was skewed towards voters, more than half of those who did not vote reported that they had. This percent is similar compared to Wanta, et al.'s (1997) recent study of a mail ballot—a vote format they believe elicits more false voting reports than traditional ballot elections. If respondents had merely forgotten whether or not they voted, then we could expect that forgetting would be equally distributed between those who said they voted but did not and those who said they did not vote but who did. But only 4 respondents who said they did not vote actually voted. Thus, forgetting can be eliminated as an explanation for most of the inaccurate voting report, especially for those respondents who said they voted but did not. The fact that nearly 13% of those who claimed to have voted did not suggests extreme care when assuming self-reported voting matches actual voting. Moreover, the difference in variance between the two voting measures was substantial enough so that they were associated with different sets of variables. Similar patterns of disconnect were found with actual voting and vote likelihood.

In addition, both newspaper readers and 6 PM local news viewers over-reported their vote at Time 2. Newspaper readers were less cynical at Time 1 while 6 PM local news viewers were more. This may indicate the power of social desirability. Perhaps newspaper readers who did not vote felt guilty about their lack of normative political behavior, given they may have perceived themselves as being well-informed about public affairs. Six PM news viewers, meanwhile, probably did not feel the same guilt, given that they, as a group, tended to be more cynical than newspaper readers. Yet the evening news viewers also over-reported their vote. It seems that the pressure to provide the socially desirable response to vote activity can override differences in individual attitudes.

Another finding of import concerns the notion that media, whether news exposure or attention to the campaign issue through news and ads, reduces voter participation. The data here suggest no such relationship. Further, respondents in the first sample who watched the local evening news tended to vote *more*.

An interesting relationship between cynicism, media use, and voting emerged from the data. Paying attention to TV ads, even though associated with cynicism at the beginning of the campaign, did not keep people from voting. Perhaps the television adwatches served their purpose by reducing misinformation in the early ads without reducing vote turnout, even though the adwatches may have increased cynicism about politics in general.

A caveat in this study is one typical of all correlational studies. Although two cross-sections of registered voter were sampled and although careful use of controls were made, the linkages found between voting, knowledge, cynicism, and media exposure and campaign media are simply correlational. Thus, a next important step is to examine how media exposure and attention directly influence self-report and actual voting. Another caveat is that although the relationships found in the hierarchical regressions were significant, the effect sizes were rather small. Seventeen predictor variables explained total variances that ranged from 5% for vote likelihood to 11% for cynicism for the second sample. Also, the campaign context studied here may provide useful information about issue-dominant campaigns, but may not generalize well to more common candidate-dominant ones.

Finally, the lone significant media predictor of actual vote was watching the local evening news. Some researchers, however, who rely on self-reported voting measures, argue that reading the newspaper is the key media predictor of voting. In light of the present results and the critical difference in how voting is measured, the contrast in these positions is not surprising. But it suggests that media researchers' theories, to the extent they predict only self-reported voting or only vote likelihood, will need to be modified when applied to actual voting.

Notes

1. The "official" turnout was 36.3%. The "official" vote turnout is calculated as a ratio of documented voters to the total registered to vote, many of whom cannot vote (e.g., moved and did not notify election board or died). By state law, boards of election may not remove a person from the registration list unless certain criteria are met. The Board of Election in the county in which the survey was conducted calculated a percentage of "inactive" records, which increased turnout to 47.4%. "Inactive" has legal status and includes people on the voter registration list who were later found to be ineligible based on the above criteria. Even so, the Board of Election cannot accurately identify the true level of people who can vote, and therefore, substantially underestimates voter turnout. We suspect that this may be a problem for all survey research on voting.

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Political distance and message desirability:

Three studies of political advertising and the third-person effect

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RUNNING HEAD: Political distance

AV needs: Overhead projector

Political distance and message desirability:

Three studies of political advertising and the third-person effect

ABSTRACT

This paper conceives of social distance as political distance, using Democrats, Republicans and the public as the groups of others on whom effects of political ads are judged. It also argues that desirability of political ads depends upon the recipient' s affiliation. In three studies using student and non-student samples, a pattern of increasing effects with increasing distance from the self was for ads from an opposite-party candidate, while the reverse was found for ads from same-party candidates.

Introduction

The third-person effect is the tendency for people to believe that media messages have a greater impact on other people than on themselves (for a review, see Perloff, 1999). Since Davison (1983) first conceived of the third-person effect, a number of studies have demonstrated the robustness of the phenomenon (e.g., Cohen, Mutz, Price and Gunther, 1988; Thompson, Chaffee and Oshagan, 1990; Rucinski and Salmon, 1990). The media messages in these studies have varied widely -- pornography, libelous news stories, negative political ads, etc. - but the common denominator for most is their undesirability.

A smaller strain of research has attempted to show that the third-person effect works in reverse when the media message in question is perceived as desirable or " smart to be influenced by" (Gunther and Mundy, 1993; White 1997), such as a public service announcement (Innes and Zeitz, 1989; Hoorens and Ruiter, 1996). Message desirability, however, is to some extent in the eye of the beholder. Cohen and Davis (1991) found that subjects who viewed ads attacking their favored presidential candidate believed others would be more influenced than themselves, while the reverse was true for attacks on the candidate they opposed: they believed they would be more influenced than other people.

Regardless of whether people expect more or less influence on themselves than on others, third-person effect research often has shown that the greater the social distance between the self and the other, the greater the gap in perceived impact. Social distance is usually conceived of as geographical distance, so that one compares oneself with others in one' s university, city, state and country (e.g., Cohen, Mutz, Price and Gunther. 1988; White, 1997). In matters concerning politics, it seems reasonable to suggest that political distance may be more relevant than geographical distance as a criterion for judging the effects of media messages on others.

Unfortunately, this conceptualization of social distance has rarely been seen (Duck, Hogg and Terry, 1995).

The present research sets out to investigate "classic" and "reverse" third-person effects associated with presidential political advertising. Like Cohen and Davis (1991), it will use campaign ads as stimuli on the assumption that the same message may be considered desirable by some and undesirable by others. Unlike Cohen and Davis (1991), it utilizes a political operationalization of social distance. This paper presents a series of three studies using 1) non-student Democrats, 2) non-student Republicans and 3) a bipartisan student sample.

Self-enhancement: The basis for classic and reverse third-person effects

Davison's (1983) original formulation of the third-person effect hypothesis was based on decades of "personal experiences" (p. 3) rather than on underlying theory; it was a phenomenon that he did a better job of describing than explaining. Since then, other researchers have sought a basis for third-person effect in theory.

Perhaps the best social psychological explanation for third-person effect is self-enhancement (Gunther and Mundy, 1993; Hoorens and Ruiter, 1996; Perloff, 1999). Self-enhancement is the tendency to see one's own traits, abilities and prospects in a somewhat exaggeratedly rosy light. It is the Western self's chief mechanism for maintaining and bolstering self-esteem. Taylor and Brown (1988) describe three areas in which self-enhancement biases have been convincingly documented. Two of these areas, overly positive views of the self and unrealistic optimism, appear to be closely related to third-person effect.

Overly positive views of the self are apparent in false uniqueness studies where, on average, everyone believes himself to be above average (Myers, 1987; Wylie, 1979). This has been documented for a number of traits and abilities. In one such study, 25 percent of American students in a national sample rated themselves in the top 1 percent in their ability to get along with others (Myers, 1987). Similarly, third person effect invites favorable comparisons with others of one's mental and critical faculties: "I am smart and savvy enough to see through this message, but others won't be."

Unrealistic optimism (Weinstein, 1980; L. Perloff and Fetzer, 1986) pertains to people's belief that compared to others, they are more likely to experience positive events (like a long life or a good salary) and less likely to experience negative events (like disease or crime) in the future. Taylor and Brown (1994) reported that at least 121 studies had demonstrated the phenomenon. Third-person effect involves a belief that a negative event -being influenced by a harmful media message - is less likely to happen to oneself than to others.

Under the self-enhancement explanation for third-person effect, people reinforce their self-esteem by thinking of themselves as smarter and better than other people, as well as less susceptible to negative outcomes. By extension, they think of themselves as more discerning of and resistant to media messages that are seen as possibly having negative outcomes. To be influenced by such messages would run counter to self-interest and would speak ill of one's intelligence.

On the other hand, it may be seen as smart and in one's self-interest to take positive messages under advisement. People may then perceive themselves as more receptive to these positive media messages than other people, who are not as astute in following good advice and who then suffer the consequences. In fact, there is some evidence for the reverse third-person effect when a message is judged as desirable.

The message: Perceptions of desirability

The messages in third-person effect studies have included defamatory newspaper stories (Cohen, Mutz, Price and Gunther, 1988), pornography (Thompson, Chaffee and Oshagan, 1990), and negative political advertising (Rucinski and Salmon, 1990). In each case, subjects expected others to be more influenced by these messages than they themselves would be.

What these messages have in common is their social undesirability. As Gunther and Mundy (1993, pp. 58-59) put it, "[T]he message context used in most third-person effect research does not serve an audience's self-interest. That is, from an audience member's perspective there is some negative quality to the message, some reason to take a dim view of its content, or intent, or both." Given the predominance of negative messages in early studies of the third-person effect, Perloff (1993, p. 176) wrote, "It remains an empirical question as to whether a Third-Person Effect would emerge for positive messages that make recommendations that are perceived to benefit the self or for messages that contain socially desirable recommendations."

As noted above, self-enhancement or self-serving bias would logically predict an effect in the reverse direction. There have been some studies that suggest that positive messages have different effects than negative ones. Innes and Zeitz (1988) were among the first to test a range of negative and positive messages. They found that people judged themselves more likely to be influenced by an anti-drunk-driving campaign than by media violence or a political campaign. However, in all three instances people judged these messages to have greater effects on other people. Hoorens and Ruiter (1996) faulted Innes and Zeitz (1988) for not having a manipulation check for message desirability.

Gunther and Mundy (1993) included such a check when they tested third-person effects for messages judged "smart to be influenced by" (seat belt usage, tanning safety and low cholesterol diet) versus messages judged "not smart to be influenced by" (lottery scheme, home mail order business, slimming pill and hair-strengthening lotion). Others were seen as much more likely than the self to be swayed by the harmful messages. For the beneficial messages, the perceived impact on self was about the same as the impact on others, sometimes slightly lower, sometimes slightly greater.

Apparently, the reverse third-person effect for desirable messages is not as robust as the classic third person effect for undesirable messages. Gunther and Mundy (1993) pointed out that this is probably because acknowledging influence, even from a desirable message, still runs counter to the self's desire for control: "One might say it is 'good to be informed, bad to be influenced'" (p. 66). A relevant concept here is effectance motivation (Jones, 1979), which suggests that people will acknowledge responding to external factors to the extent that their sense of control and self-esteem are not threatened.

While reverse third-person effects are relatively elusive, they have been demonstrated. Hoorens and Ruiter (1996) tested the perceived impact of messages deemed desirable (traffic safety, crime prevention, organ donation, environment, human rights and chronic diseases) and undesirable (weapon industry, cocktails, extreme right, politicians, detergents, and holiday resorts). The study found "classic" third person effects for four of the six undesirable messages, but it also found "reverse" third-person effects for five of the six desirable messages – people perceived themselves to be more greatly affected than other people by these desirable messages.

In the political arena, there have been other results consistent with a reverse third person effect. Cohen and Davis' (1991) found that a candidate's supporters thought they were more swayed by his ad than other people would be. Duck, Hogg and Terry (1995) found that members of an Australian party judged themselves and their fellow party members to be *more* influenced than members of other parties by material favoring their party.

The other: Social distance and reference groups

In a memorable phrase defining third person effect, Davison (1983) proposed that people think the media's greatest impact "will not be on 'me' or 'you' but on 'them' - the third persons" (p. 3). This formulation implicitly recognizes social distance as a key variable in this phenomenon in its suggestion that perceived effects will be greater for third persons (them) than for second persons (you).

Why should social distance matter? Davison (1983, p. 12) suggests that "the concept of reference groups may prove useful in explaining the third-person effect. Are people 'like me' or 'different from me' seen as being more affected by persuasive messages?" Social identity theory (Tajfel and Turner, 1979) and social categorization theory (Turner, 1985) suggest that an important part of the self-concept comes from membership in reference groups. People tend to highlight their similarities to ingroup members and highlight their differences with outgroup members. Then, when they make group comparisons, they tend to favor the ingroup as a way to enhance self-esteem. Duck, Hogg and Terry (1995) draw the connection between self-enhancement and self-categorization:

> To the extent that the comparison others are judged as outgroup members, they would be contrasted to the perceiver's identity, evaluated negatively, and represented unfavourably - as relatively vulnerable to media influence. In contrast, to the extent that comparison others are judged as ingroup members, they would be assimilated to the perceiver's identity, evaluated positively and represented favourably - as relatively invulnerable to influence (p. 198).

A number of studies have lent support to the importance of social distance in third person effect. Cohen, Mutz, Price and Gunther (1988) found that perceived impact of a defamatory news story was smallest on "self," increased for "other Stanford students," increased again for "other Californians," and was greatest for "public opinion at large." White (1997) found a similar (but imperfect) pattern for self, local students, students at other universities, and other state residents. Gibbon and Durkin (1995) found that same pattern of ascending impact from self to family to neighbors to other state residents to other Australian citizens to others in general.

The conceptualization of social distance in these studies is similar. Each step in social distance appears to entail a step up in social organization, each step up becoming more general and incorporating more subordinate components. It's as though these groups are conceived of as a series of concentric circles that grow outward with the self at the center, so that each increment of social distance (family, neighborhood, state, country) completely contains all smaller increments and is completely contained by the next larger increment. It is nearly analogous with geographic distance; in fact, Cohen and Davis (1991, p. 682) chose those exact words to describe the variable used in Cohen, Mutz, Price and Gunther (1988).

The conceptualization of social distance as a set of nested social (or geographic) levels is tidy, but it may not always be highly relevant. This is particularly true in contexts where social groups are seen as opposed. Then the conceptualization of social distance envisions social groups as adjacent circles – ingroups and outgroups. Here, the distinction between "you" and "them" as Davison (1983) discussed them is clear – members of the same ingroup are "you" – or "we" – while members of outgroups are "them." This ingroup-outgroup approach toward social distance echoes the "hostile media phenomenon" work of Vallone, Ross and Lepper (1985) and Perloff (1989) in their examination of Israeli and Palestinian partisans' perceptions of the effect of news reports about the 1982 war in Lebanon

In recent years, there have been a few studies of the effect of political partisanship on third-person effect. Price, Huang and Tewksbury (1997) found that when considering damaging news about Republican Newt Gingrich, conservatives estimated less impact on themselves than liberal respondents did. Furthermore, in a pilot study, they had found that liberals estimated less impact on themselves when confronted with damaging news about President Clinton. Cohen and Davis (1991) found that subjects who viewed attacks on a candidate they supported believed others supporting the candidate would be more influenced than themselves, while the reverse was true for attacks on a candidate they opposed.

While these studies appeared to recognize the importance of self-categorization for third-person effect, they didn't fully explore the issue. They asked about perceived effects on a neutral other or on progressively geographically distant others, rather than on the relevant ingroups and outgroups (for example, political or national partisans on the opposing side and one's own).

Duck, Hogg and Terry (1995) is the only study I've encountered that considered perceived media effects on self, ingroup and outgroup members, and people in general. It examined the role of political identification (Labor vs. Liberal-National Coalition) in perceptions of the effects of media campaigns in the 1993 Australian election. In addition to the usual third person effect finding that the generalized "other" is a vulnerable voter (cf. Rucinski and Salmon, 1990), the researchers found strong support for social identity and self-categorization theory:

- Ingroup members were perceived as less influenced than outgroup members by the campaigns and coverage in general in the media.
- Respondents judged themselves and their ingroup to be less influenced than outgroup members and the general public by material favoring the outgroup.
- They judged themselves and their ingroup to be *more* influenced than outgroup

members by material favoring the ingroup.

Duck, Hogg and Terry (1995) provided some crucial theoretical links and preliminary empirical support for a political operationalization of social distance and a political message desirability interaction, but their study left something to be desired methodologically. The sample for study was composed entirely of college students. Also, only 54 respondents - eligible voters and partisans of the two major parties - were retained for the sample.

Hypotheses

1. **For an ad by a candidate from an opposing party, as political distance from the self increases, perceived ad-consistent effects on others will increase.** This is a classic third-person hypothesis. An opposing-party ad would be considered an undesirable message. Hence, compared to politically distant others, people will judge themselves less affected in the direction intended by the ad. People believe they can "see through" ads from opposing candidates, but they'll expect others who are not ingroup members (members of the same party) to be taken in.
2. **For an ad by a candidate from their own party, as political distance from the self increases, perceived ad-consistent effects on others will decrease.** This is a reverse third-person hypothesis. A same-party ad would be considered a desirable message. Compared to politically distant others, people will judge themselves more affected in the direction intended by the ad. People will believe themselves capable of seeing the merits of such an ad, but others who are not ingroup members will not be expected to recognize these merits. Given the preceding hypotheses, it is further predicted that:
3. **Political distance and candidate party will significantly interact such that own-party**

messages yield reverse third-person effects and opposite party messages yield classic third-person effects.

Variables

Candidate party: This was my stand-in for message desirability. Ads from Republican candidates were assumed to be desirable messages for Republicans and undesirable messages for Democrats, and vice versa. Ads from all viable presidential candidates who produced television ads were used. One ad from each surviving candidate was shown to each respondent in each study.

Party affiliation: The questionnaire asks which party the respondent feels closest to: Republican, Democratic or other. It also asks how close one feels to the party on a 7-point scale.

Social/political distance: Consistent with conceptualizing this distance as political, the " others" for which respondents estimated effects were Democrats, Republicans, and the public in general. For Democrats, other Democrats are assumed to be the closest, the public in general is next, and Republicans are the most distant, and vice versa for Republicans. For those who are neither or other, the public in general should be the closest, with Democrats and Republicans equally distant (although not as distant as the opposing parties are from each other).

Political philosophy: This consists of self-placement on a 9-point " very conservative" to " very liberal" scale. The respondents also placed the candidates, the major parties and the public on this scale to help judge social distance.

Perceived effect on candidate favorability and vote choice: After each ad, respondents rated the effect of the ad on affective and behavioral levels with the following questions on the following scale:

"How has this ad affected **your** impression of X?"
"How do you think this ad would affect **Democrats'** impression of X?"
"How do you think the ad would affect **Republicans'** impression of X?"
"How do you think the ad would affect the impression **the public in general** has of X?"

Feel much **less** favorable toward him			No change			Feel much **more** favorable toward him
-3	-2	-1	0	+1	+2	+3

Then the same approach for vote choice: "How has this ad affected the way you might vote if X is still running in November?"[1] The poles were labeled "much **less** likely to vote for him" and "much **more** likely to vote for him."

Note that the scale allows for positive *and* negative reactions to messages, in addition to no change. An opposing party candidate's message may reveal unpalatable issue positions or a halting style of delivery that prompt unfavorable reaction. Similarly, an opposing candidate's argument may prompt resistance through counterarguing, which tends to reinforce one's original position (Zaller, 1991). In any case, it seems unwarranted to assume change in only a positive direction; Cohen and Davis (1991) used a similar 7-point bipolar scale. Change in a positive direction, the direction intended by the ad, is what the hypotheses address.

Other variables: The questionnaire also assessed interest in and attention to the presidential race, intention to vote, candidate preference and commitment to that choice, favorability toward each candidate, age, education, race and sex.

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[1] For Study 3, which came after the Super Tuesday primaries, the question read: "How do you think you (Democrats/Republicans/the public in general) might vote in November?"

STUDY 1

Method

Stimuli: For this portion of the study, campaign ads were obtained on videotape from the campaigns of Bill Bradley, George W. Bush and John McCain. Transcripts of current ads for Al Gore and Steve Forbes were obtained from their respective campaign Web sites. One ad from each candidate was included in this portion of the study.

Respondents: The study was conducted at the end of the annual program meeting of the League of Women Voters of Minneapolis on Jan. 11. The group has 400 members, of whom about 50 attended. Of those, 30 took part in the study. I originally had intended to split this sample into Democrats and Republicans, so the small N threatened to doom my hopes for meaningful data analysis. However, although the League is nonpartisan, only one member of the group identified herself as a Republican. A few others demurred, leaving me with 26 Democrats for my analysis.

The respondents were all women with a mean age of 55. They all had at least some college education. With one exception, they were all white. Of the declared Democrats, 16 listed Bradley as their first choice and 10 favored Gore.

Procedure: The participants were handed the instrument. The first questions were about the race: interest, candidate preference and commitment. Then came the five ads, each of which was followed by the effects questions. The televised ads were the second, third and fourth ads given to the participants. When everyone had finished answering questions about an ad, the next one was shown. With one VCR and limited time, the order of the televised ads could not be rotated. However, the first and fifth ads were in transcript form. For half of the participants, a Gore ad was first; for the others, a Forbes ad was first. After finishing the questions about the ads, participants were asked about party identification, placement of self and others on a political philosophy scale, and demographic information.

Results

Hypothesis 1: Repeated-measures MANOVAs using the average scores (across the three Republican candidates) for effects on self and progressively distant others as a single "distance" factor showed a significant main effect of distance for both impression ($F_{3,20} = 28.54$, $p<.001$) and voting ($F_{3,19} = 18.81$, $p<.001$).[2] A look at the means shows the direction is as expected. For these Democratic respondents viewing Republican ads, perceived effects generally increase as political distance from the self increase, which supports the classic third-person effects predicted in H1.

Paired t-tests were run comparing estimated effect of the ad on one's *own* impression of and likelihood to vote for Republican candidates with estimated effects on *others*' impressions and vote choice (Table 1). In all cases, perceived effects on self are significantly lower than effects on the public and on Republicans, while effects on self and on the ingroup (Democrats) had just one difference of marginal significance. Paired t-tests among the groups of others showed that perceived effects for the ingroup, the Democrats, were always significantly lower than effects for the public and for Republicans. However, effects for the public and Republicans were significantly different only for the Bush ad.

Interestingly, the respondents said the ads for Bush and Forbes made them more opposed to the Republican candidates, and that negative reaction was stronger than the positive regard they expected the ads to generate among Republicans. (They reported that their impressions of

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[2] In both cases – and hereafter unless otherwise noted - the linear component of variance in the MANOVAs were also significant. Such findings support the linear relationships hypothesized in H1 and H2.

McCain were positively affected by McCain's ad, but not nearly as much as they thought Republicans' impressions would be.)

Hypothesis 2: Next, I looked at evidence for reverse third-person effects predicted in H2. The repeated-measures MANOVAs this time used average scores for effects of Democratic ads, and again there was a significant main effect of distance for both impression ($F_{3,23} = 19.85$, $p<.001$) and voting ($F_{3,22} = 14.68$, $p<.001$). A look at the means shows that, as expected, perceived effects of ads from one's own party generally decrease as political distance from the self increases, which supports the reverse third-person effect predicted in H2.

Paired t-tests were run to compare effects on candidate impression and vote choice for self versus others (Table 2). They showed that for both Gore and Bradley ads, the Democratic respondents said their impressions and voting would be affected significantly more than Republicans would. These results are consistent with H2. However, I was expecting effect ratings for self to be higher than those for the public. But for Bradley, the public was seen as being as swayed as the respondents themselves. And for Gore, the public was seen as being significantly *more* favorable toward him after the ad than the respondents were, a significant result in the opposite direction from what I expected. Similarly, other Democrats were seen as significantly more responsive to Gore's ad than the respondents themselves. This may stem from the fact that most of the respondents favored Bradley, while the Democratic leadership had lined up behind Gore.

In paired t-tests among the groups of others, perceived effects of the Democratic ads on Republicans were always significantly lower than for others, which is consistent with the reverse third-person effect predicted in H2. But only for effects on voting for Gore were effects for Democrats and the public significantly different; otherwise, the public was assumed to react like

Democrats would.

Hypothesis 3: Repeated-measures MANOVAs with two within-subjects factors, candidate party (two levels: Republican and Democratic) and political distance (four levels: for each party, average scores of effects on self, Democrats, the public, and Republicans) yielded the predicted distance x candidate party interaction for impression ($F_{3,20} = 28.05$, $p<.001$) and voting ($F_{3,18} = 17.12$, $p<.001$). The interaction (See Figures 1 and 2) shows effects of Republican ads increasing as political distance from the self increases, while effects of Democratic ads stay fairly level across self, Democrats and public before plummeting for the most distant group, Republicans.

Discussion for Study 1

This study showed strong support for classic third-person effects and for a distance*candidate party interaction, with moderate support for reverse third-person effect. The reverse third-person effect, greater effects for self than other, seems to apply only in comparing the self to an outgroup (someone of an opposing party) rather than merely to others who are not ingroup members (the public in general). But this study by itself is severely limited by its small size and its inclusion of Democrats only. The next study looks at Republicans.

STUDY 2

Method

Stimuli: At this point in the campaign, ads on video for the four major remaining candidates (Democrats Gore and Bradley and Republicans McCain and Bush) were available. All remaining ads were the same used in Study 1 except for Gore' s; the video ad was similar in theme but not identical to the transcript used before.

Respondents: Respondents were Minneapolis residents who attended a Republican precinct caucus on March 7. Of 26 people who attended, 23 completed questionnaires. Of those, 20 identified themselves as Republicans. Those 20 were the respondents used in the analysis below. They included nine women and 11 men with a mean age of 61. Fifteen of the 16 who responded to the question claimed at least some college education.

Procedure: As in Study 1, the study was administered at the close of the evening's meeting. Those who wished to participate were invited to stay. The study was run separately with two small precincts (N's of 6 and 17). There was no order rotation; otherwise, the procedure was identical to Study 1.

Results

Hypothesis 1: Two repeated-measures MANOVAs were run as in Study 1, but the distance factor was set up so that the effects progressed from self to Republicans (the ingroup this time) to the public to Democrats. For the Democratic ads, there was a significant main effect for distance on impression ($F_{3,17} = 12.51$, $p<.001$) and voting ($F_{3,20} = 13.00$, $p<.001$). A quick look at the means shows strong support for the classic third-person effects predicted in H1. As political distance from the self increases, so do the perceived effects of Democratic ads.

Paired t-tests were run to compare effects of the Democratic ads on candidate impression and vote choice for self versus others (Table 3). The results show that, for both candidates and for both DVs, the Republican respondents perceived greater ad-consistent effects on more distant others (Democrats and the public) than on themselves, while there were no significant differences between ratings for one's self and one's own party. Moreover, paired t-tests among the groups of others show that perceived effects increase significantly with each step outward from Republicans to public to Democrats. (The lone exception is impression effects for Bradley, where effects on Democrats and public are similar.)

Hypothesis 2: The repeated-measures MANOVAs using average effects of Republican ads for self and others showed significant main effects for political distance on impressions ($F_{3,19} = 7.08$, $p<.01$) and voting ($F_{3,20} = 5.74$, $p<.01$). The direction of this effect is as expected: For these Republican respondents, as political distance from the self increases, effects of the Republican ads tend to decrease, which supports the reverse third-person effect predicted in H2.

Paired t-tests comparing effects on self with effects on others showed that for these Republican respondents, perceived effects on self were significantly greater than effects on Democrats, the most distant group of others. The difference was significant for both effects of the Bush ad, but just for impression effects of the McCain ad. (The absence of a significant self-Democrat difference on the McCain ad's effect on voting may have reflected the respondents' awareness of Democrats crossing over to vote for McCain in previous primaries.) These findings are consistent with H2.

However, there was no difference in effects between self and public, much as in Study 1, which suggests that the reverse-third-person effect is not merely linear. Moreover, the GOP respondents expected other Republicans to respond more favorably to the Bush ad than they themselves did, even though most of the respondents favored Bush themselves. (I tried the analysis again just with the 16 who favored Bush, and the difference was still significant.) This difference might reflect the knowledge that Bush is the anointed nominee favored by the party's organization. Paired t-tests among the groups of others generally showed smaller perceived effects on Democrats than on other groups.

Hypothesis 3: To examine the interaction of political distance and candidate party, I used the two-factor repeated-measures MANOVA described in Study 1, except that the levels of the distance factor consisted of the average effect of ads on one's own impressions, then the effects on Republicans, effects on the public and, most distant, effects on Democrats. The distance x candidate party interaction was significant for both impression ($F_{3,13} = 17.46$, $p<.001$) and voting ($F_{3,17} = 12.04$, $p<.001$). The interaction (see Figures 3 and 4) shows effects of Democratic ads increasing as political distance from the self increases, while effects of Republican ads stay fairly level across self, Republicans and public before falling sharply for the most distant group, Democrats.

Discussion for Study 2

Support for classic third-person effects was quite strong, as was the support for the distance x candidate party interaction. The support for reverse third-person effects was weaker than in the previous study, but still moderate. The shape of the interaction graphs for the Republican respondents (Figures 3 and 4) closely mirror that of the Democrats (Figures 1 and 2); the lines represent different parties. It appears that there may be a three-way interaction between own party, candidate party and distance. But to determine that, a larger, politically heterogeneous sample would be needed. It also would help generalizability if the findings hold with people who are not as politically knowledgeable or involved, because these two factors have been known to enhance third-person effects (Atwood, 1994; Perloff, 1999). The previous two samples also have been, on average, old enough to qualify for AARP membership. For the preceding reasons, I employ a student sample in Study 3. While third-person effects tend to be larger in student samples (Paul, Salwen and Dupagne, 2000), I believe that such a sample would pose a conservative test of effects based on political distance.

STUDY 3

Method

Stimuli: This study was administered on March 21, less than two weeks after John McCain and Bill Bradley left the race. Accordingly, it used one ad from George W. Bush and one from Al Gore, ads which had been used in Study Two. A duplicate tape was made so that half of the subjects would see the ads in reverse order.

Subjects: The instrument was administered to 129 students in an introductory mass communication class. The students received extra credit for their participation. The sample was 62 percent female and 88.4 percent white with a mean age of 20. More than half were first-year students; 83.6 percent were either freshmen or sophomores. Politically, 50.4 percent said they felt closest to the Democratic Party, 32.6 percent to the Republicans, and 17.1 percent marked "other."

Procedure: The questionnaires were handed out, with the two versions color-coded and collated so that they alternated. Those who received the yellow version (in which the Gore ad was shown first) were taken to a separate room, while those with white (Bush-first) questionnaires remained. Otherwise, the procedure was identical to those described in studies 1 and 2.

Results

Hypothesis 1: For each group – Democrats and Republicans – two repeated-measures MANOVAs were run as in Study 1, the four-level distance factor set up was so that the effects of the opposite-party ad progressed from self to the most distant group.

Democrats: For Democrats reacting to the Bush ad, there was a significant main effect for distance on impression ($F_{3,61} = 59.63$, $p<.001$) and for voting ($F_{3,62} = 30.53$, $p<.001$ for

Bush). A look at the means shows strong support for the classic third-person effects predicted in H1. As political distance from the self increases, so do the perceived effects of Bush's ad.

Paired t-tests were run to compare effects of the Bush ad on candidate impression and vote choice for self versus others (bottom of Table 5). The results show that the Democratic students perceived significantly greater ad-consistent effects on more distant others (Republicans and the public) than on themselves, and, in the case of impression, marginally greater effects on fellow Democrats. Moreover, the differences between the groups of others -- Democrats, the public and Republicans - are all significant and in the expected direction.

Republicans: For Republicans responding to the Gore ad, there was a significant main effect of distance on impression ($F_{3,39} = 16.45$, $p<.001$) and for voting ($F_{3,39} = 9.58$, $p<.001$). An examination of the effect means shows strong support for H1 in that as political distance from the self increases, so do the perceived effects of the Gore ad.

Paired t-tests comparing effects on self with effects on others demonstrates the pattern (top of Table 6). The Republican students perceived significantly greater effects on Democrats and the public than on themselves, while they perceived marginally greater effects on their own impression of Gore than the impressions of fellow Republicans. Within the groups of others, effects were smallest on Republicans and greatest on Democrats, consistent with H1, although the difference between the public and Democrats was not significant.

Hypothesis 2: Repeated-measures MANOVAs were run as under Hypothesis 1, except that effects chosen were for the same-party ad.

Democrats: For Democratic students seeing the Gore ad, the MANOVAs showed a significant main effect of distance on impressions ($F_{3,62} = 47.35$, $p<.001$) and voting ($F_{3,62} = 47.75$, $p<.001$). The linear effect was significant, although the quadratic component of variance was even greater. A look at the means shows that perceived effects of the ad are lowest when distance from the self is greatest, which supports H2, although the effects are greater or the same for the two closest groups.

Paired t-tests comparing effects on self with effects on others (top of Table 5) show that the Democratic students perceived significantly greater effects of the Gore ad on themselves than on Republicans, consistent with H2. However, the tests also show that perceived effects on fellow Democrats were significantly greater than on the self. Comparisons between the groups of others shows that effects on Democrats are always significantly higher than on Republicans. Effects for the public were significantly different from both Democrats and Republicans on impressions of Gore, but different only from Republicans on voting.

Republicans: For Republican students seeing the Bush ad, the MANOVAs showed significant main effects of distance on impression ($F_{3, 39} = 14.32$, $p<.001$) and voting ($F_{3, 39} = 10.62$, $p<.001$). A look at the means shows that this effect is in the expected direction, that as distance from the self increases, perceived effects decrease.

Paired t-tests show that the Republican students perceived significantly greater effects on themselves from the Bush ad than on Democrats, consistent with H2, but there was no difference between self and public. Comparison between the groups of others shows effects for Democrats significantly lower than for the other groups.

What about non-partisan students? I assumed that non-partisan students would consider themselves closest politically to the public, but that was incorrect. A look at these students' placement of themselves and the three groups of others on the 9-point liberal-conservative scale shows that they consider themselves marginally more liberal (4.05) than Democrats (4.95), and significantly more so than the public (5.43) and Republicans (5.81). Assuming that they actually consider themselves closest to Democrats, paired t-tests comparing perceived effects on self vs. others (Table 7) shows patterns consistent with classic third-person effects (H1) for the Bush ad and with reverse third-person effects (H2) for the Gore ad.

Hypothesis 3: For respondents of each party, I ran a pair of repeated measures MANOVAs using distance (self, own party, public, opposite party) and candidate party (equivalent in this case with candidate) as within-subjects factors. As always, the first dependent variable was perceived effect of the ad on impressions of the candidate, and the second was perceived effect of the ad on likelihood of voting for the candidate.

Democrats: The predicted distance x candidate party interaction was significant for both impression ($F_{3,61} = 81.18$, $p<.001$) and voting ($F_{3,62} = 60.97$, $p<.001$). The interactions (see Figures 5 and 6) shows effects of Republican ads increasing as political distance from the self increases, while effects of Democratic ads stay fairly level across self, Democrats and public before falling sharply for the most distant group, Republicans.

Republicans: The distance x candidate party interaction was significant for both impression ($F_{3,39} = 17.61$, $p<.001$) and voting ($F_{3,39} = 9.34$, $p<.001$). The interaction (see Figures 7 and 8) shows classic third-person effects for Democratic ads, while the general slope for the Republicans ads is clearly different.

A candidate-party x distance x own party interaction: Look at Figures 5 and 7 side by side, then do the same for Figures 6 and 8. They show the same general shape, but the lines switch places from one graph to the next. This suggests that the two-way interactions documented thus far between political distance and candidate party may in fact be a three-way interaction in which the ad recipient's party affiliation is a between-subjects factor.

To test this hypothesis, one more pair of repeated-measures MANOVAs were run using the factors outlined above with 106 partisan students. Main effects for distance ($F_{3,102}=13.33$, $p<.001$) and candidate party ($F_{1,104}=19.16$, $p<.001$) were both significant; respondent's affiliation was marginally so ($F_{1,104}=3.28$, $p<.10$). Of greater theoretical interest was the interaction of distance and candidate party, which was also significant ($F_{3,102}=77.62$, $p<.001$). And indeed, the three-way interaction was significant as well ($F_{3,102}=16.79$, $p<.001$). To the extent that candidate party is a manipulation of message desirability, a person's own party affiliation appears to interact with the person's determination of which party's messages will be seen as desirable.

General discussion

This research, as it stands, has some important limitations. Sample sizes were small and drawn by convenience, with few real nonpartisans. The number of ads used was small and can' t claim to be truly representative of current political advertising. That said, the findings across the three studies with three very different samples were consistent.

This paper offers additional support for the existence of reverse third-person effect. While this reverse effect tends not to be as robust as its counterpart, there was strong evidence for it here. However, it appears here that the reverse third-person effect may not kick in until the other is quite distant from the self, perhaps an outgroup. It may be that for desirable messages, the false consensus effect outweighs reverse third-person effect for an indistinct group of others like the public. Dawes (1989) argues that when we know little about other people' s responses, we' re likely to substitute our own. At the very least, it seems likely that message desirability has an interactional role to play in third-person effect.

Despite the effect sizes obtained here, note that the manipulation of message desirability here, via candidate party, was relatively modest. The ads used in this research, unlike in Cohen and Davis (1991), were positive, issue-oriented ads, the kind generally considered least objectionable and harmful by the public. The fact that they yielded both reverse and classic third-person effects suggests that message desirability is in the eye of the beholder. Future research may do well to consider the differences, if any, in effects produced by positive versus negative political ads, given the differing levels of desirability these messages have.

The significance of reverse third-person effects here provides additional support for the role of self-enhancement in third-person effect. Self-enhancement, the desire to see oneself in a positive light, can account for both classic and reverse third-person effects: People believe themselves discerning enough to consider desirable messages while disregarding undesirable ones. The results here bolsters self-enhancement as an effective and parsimonious explanation of third-person effect (Perloff, 1999).

This research also suggests that a political conceptualization of social distance can be relevant to third-person effect research. The greatest self-other differences were not with the public in general, as is often found with a geographical conceptualization of social distance, but with others of an opposing political party. This suggests that Davison (1983) was right to argue for the relevance of reference groups in explaining the operation of social distance in third-person effect. Broader application of this approach could include using other topic-relevant reference groups for operationalizing social distance. For instance, one might look at perceived effects of news about racial profiling on trust in police for the self, Anglo-Americans and African Americans, or the effects of pornography on body image ideals for self, men and women.

The political distance approach could be taken further with closer examinations of political ideology and group membership. Political distance could be quantified by using the difference between self and groups of others (or candidates) on political ideology scales. This approach proved helpful in my brief treatment of nonpartisan students, who placed themselves closer to Democrats than to the general public and tended to react like Democrats to the ads. Likewise, the role of group membership could be better understood by considering its strength and salience, an area that Duck, Hogg and Terry (1995) began to explore with interesting results.

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Study 1

Table 1: Democrats' ratings of effects of Republicans' ads on self and others
Note: Scores are group means on -3 to +3 scales

Candidate and effect	Effect on self	Effect on Democrats	Effect on public	Effect on Republicans
McCain-impression	.42	$.19_a$	1.15_b**	1.08_b#
McCain-voting	.27	$.31_a$	1.00_b*	1.38_b***
Bush-impression	-2.38	-2.12_a#	$-.96_b$***	$.88_c$***
Bush-voting	-2.04	-1.96_a	$-.92_b$***	$.42_c$***
Forbes-impression	-.65	$-.81_a$	$.10_b$**	$.46_b$***
Forbes-voting	-.54	$-.95_a$	$.04_b$*	$.48_b$**

N=26. Within each row, means with different subscripts are significantly different at p<.05.
Differences between effect on own impression and others different at: *** p#.001 **p#.01 *p#.05 #p#.10

Table 2: Democrats' ratings of effects of Democrats' ads on self and others
Note: Scores are group means on -3 to +3 scales

Candidate and effect	Effect on self	Effect on Democrats	Effect on public	Effect on Republicans
Bradley-impression	.96	1.15_a	1.12_a	$-.88_b$***
Bradley-voting	1.12	1.19_a	1.31_a	$-.31_b$***
Gore-impression	-.08	$.58_a$***	$.58_a$***	$-.81_b$**
Gore-voting	.38	$.96_a$***	$.64_b$	$-.40_c$*

N=26. Within each row, means with different subscripts are significantly different at p<.05.
Differences between effect on own impression and others different at: *** p#.001 **p#.01 *p#.05 #p#.10

Study 2

Table 3: Republicans' ratings of effects of Democrats' ads on self and others
Note: Scores are group means on -3 to +3 scales

Candidate and effect	Effect on self	Effect on Republicans	Effect on public	Effect on Democrats
Bradley-impression	.20	$-.10_a$	$.84_b$*	$.79_b$#
Bradley-voting	-.05	$-.15_a$	$.55_b$*	1.05_c***
Gore-impression	-.42	$-.70_a$	$.45_b$**	$.85_c$***
Gore-voting	-.65	$-.65_a$	$.50_b$***	$.95_c$***

N=20. Within each row, means with different subscripts are significantly different at p<.05.
Differences between effect on own impression and others different at: *** p#.001 **p#.01 *p#.05 #p#.10

Table 4: Republicans' ratings of effects of Republicans' ads on self and others
Note: Scores are group means on -3 to +3 scales

Candidate and effect	Effect on self	Effect on Republicans	Effect on public	Effect on Democrats
McCain-impression	.65	$.40_a$	$.75_a$	$-.15_b$**
McCain-voting	.70	$.65_{ab}$	$.85_a$	$.35_b$
Bush-impression	.63	1.15_a*	$.50_b$	$-.05_b$*
Bush-voting	.50	$.90_a$*	$.60_a$	$-.10_b$*

N=20. Within each row, means with different subscripts are significantly different at p<.05.
Differences between effect on own impression and others different at: *** p#.001 **p#.01 *p#.05 #p#.10

Study 3

Table 5: Democrat students' ratings of ad effects on self and others
Note: Scores are group means on -3 to +3 scales

Candidate and type of effect	Effect on self	Effect on Democrats	Effect on public	Effect on Republicans
Gore -impression	1.08	1.46_a**	1.18_b	$-.55_c$***
Gore - vote choice	.83	1.17_a*	$.97_a$	$-.40_b$***
Bush - impression	-.69	$-.92_a$#	$.02_b$***	1.32_c***
Bush - vote choice	-.83	$-.89_a$	$.02_b$***	$.94_c$***

N=65. Within each row, means with different subscripts are significantly different at p<.05.
Differences between effect on own impression and others different at: *** p#.001 **p#.01 *p#.05 #p#.10

Table 6: Republican students' ratings of ad effects on self and others
Note: Scores are group means on -3 to +3 scales

Candidate and type of effect	Effect on self	Effect on Republicans	Effect on public	Effect on Democrats
Gore -impression	.29	$-.09_a$*	1.00_b***	1.14_b***
Gore - vote choice	.12	$-.05_a$	$.64_b$ **	$.88_b$**
Bush - impression	.74	1.02_a	$.71_a$	$.40_b$***
Bush - vote choice	.48	$.60_a$	$.48_a$	$-.17_b$***

N=42. Within each row, means with different subscripts are significantly different at p<.05.
Differences between effect on own impression and others different at: *** p#.001 **p#.01 *p#.05 #p#.10

Table 7: Non-partisan students' ratings of ad effects on self and others
Note: Scores are group means on -3 to +3 scales

Candidate and type of effect	Effect on self	Effect on Democrats	Effect on public	Effect on Republicans
Gore -impression	.73	1.05_a	1.05_a#	$-.14_b$**
Gore - vote choice	.76	$.90_a$	1.05_a #	$.05_b$***
Bush - impression	-.18	$-.45_a$	$.36_b$*	$.68_b$*
Bush - vote choice	-.27	$-.32_a$	$.23_b$*	$.73_b$*

N=22. Within each row, means with different subscripts are significantly different at p<.05.
Differences between effect on own impression and others different at: *** p#.001 **p#.01 *p#.05 #p#.10

Figure 1

Democrats' ratings of effects on impression

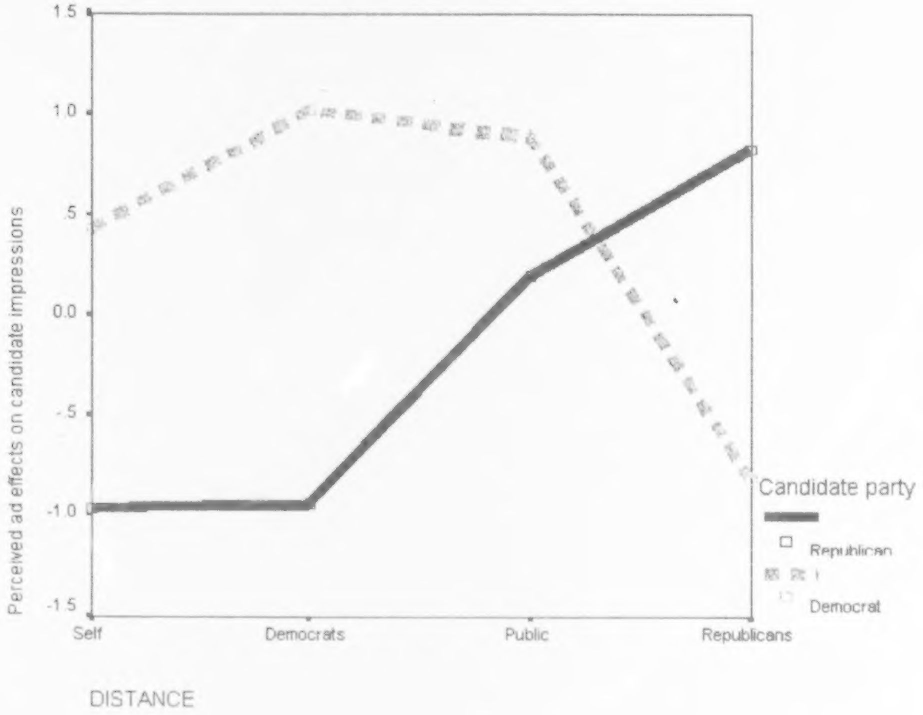


Figure 2

Democrats' ratings of effects on voting

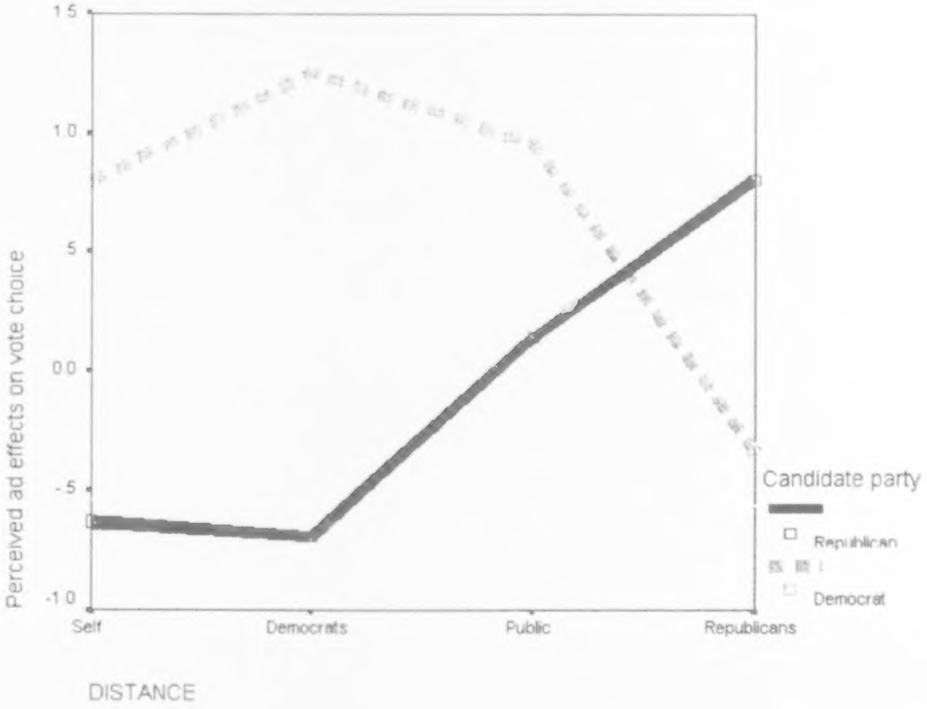


Figure 3 Republicans' ratings of effects on impression

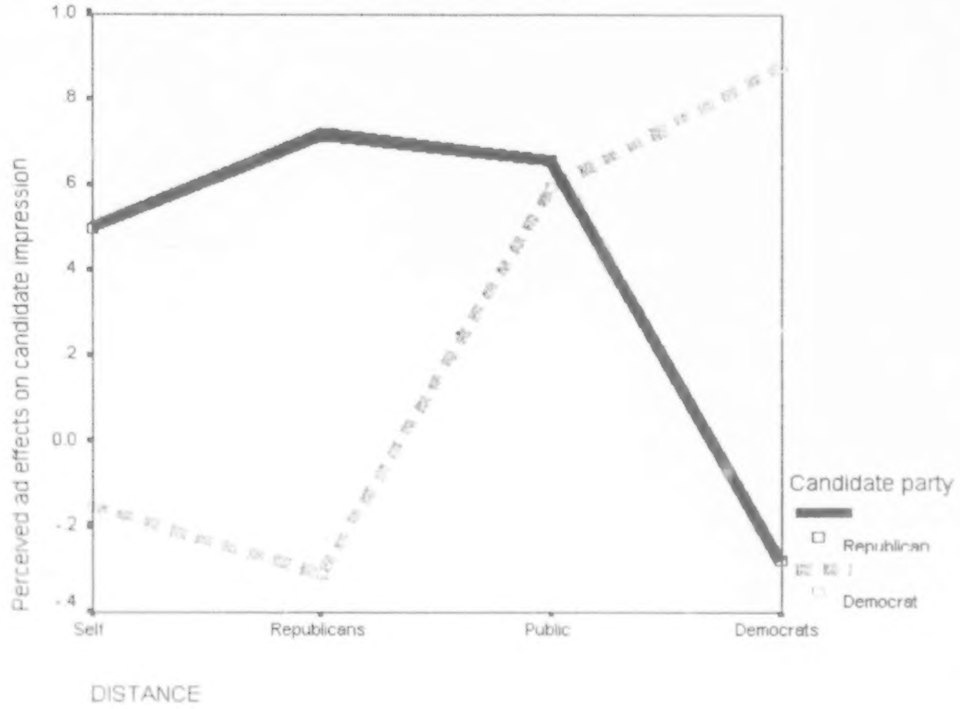


Figure 4 Republicans' ratings of effects on vote choice

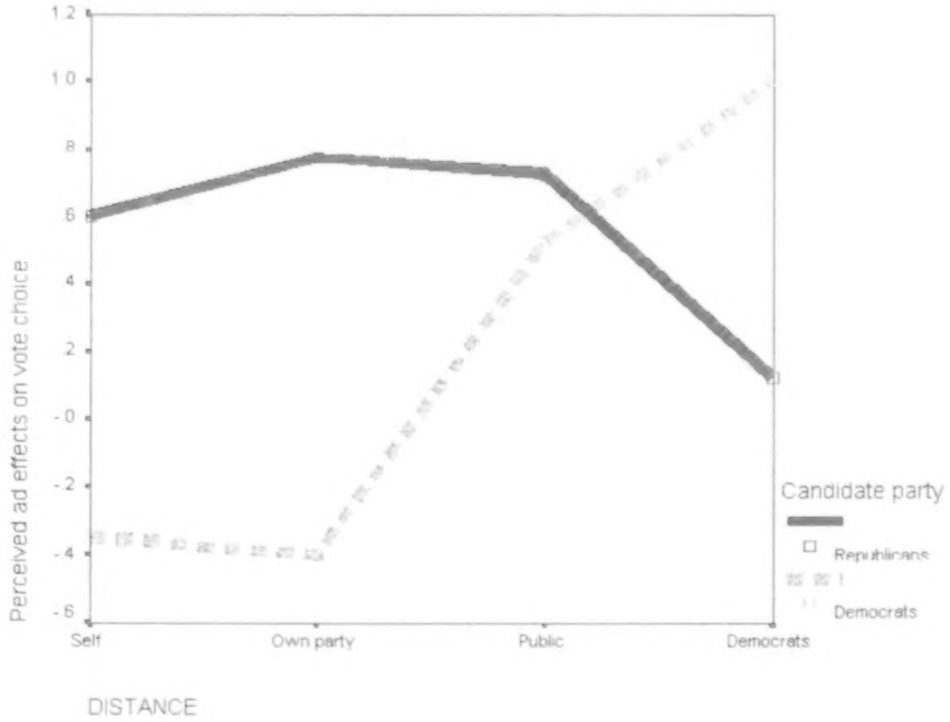


Figure 5

Democrat students' ratings of impression effects

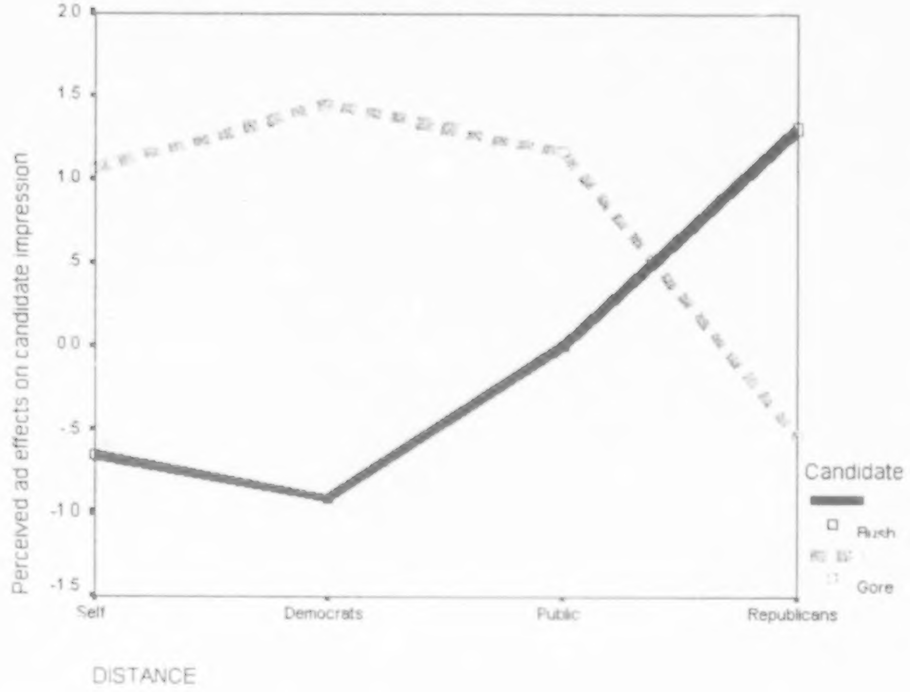


Figure 6

Democrat students' rating of voting effects

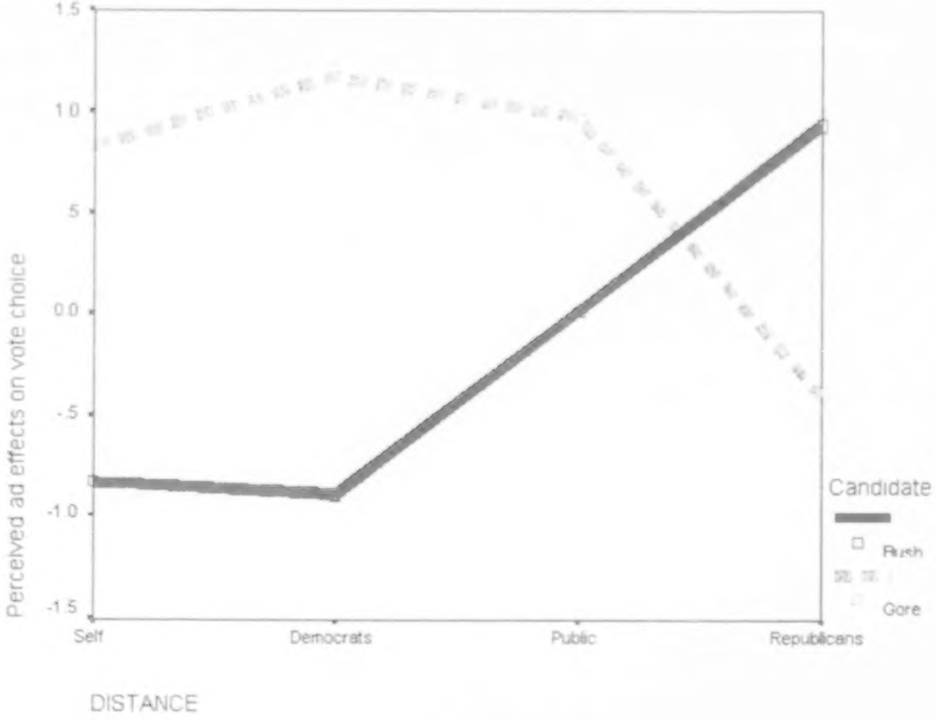
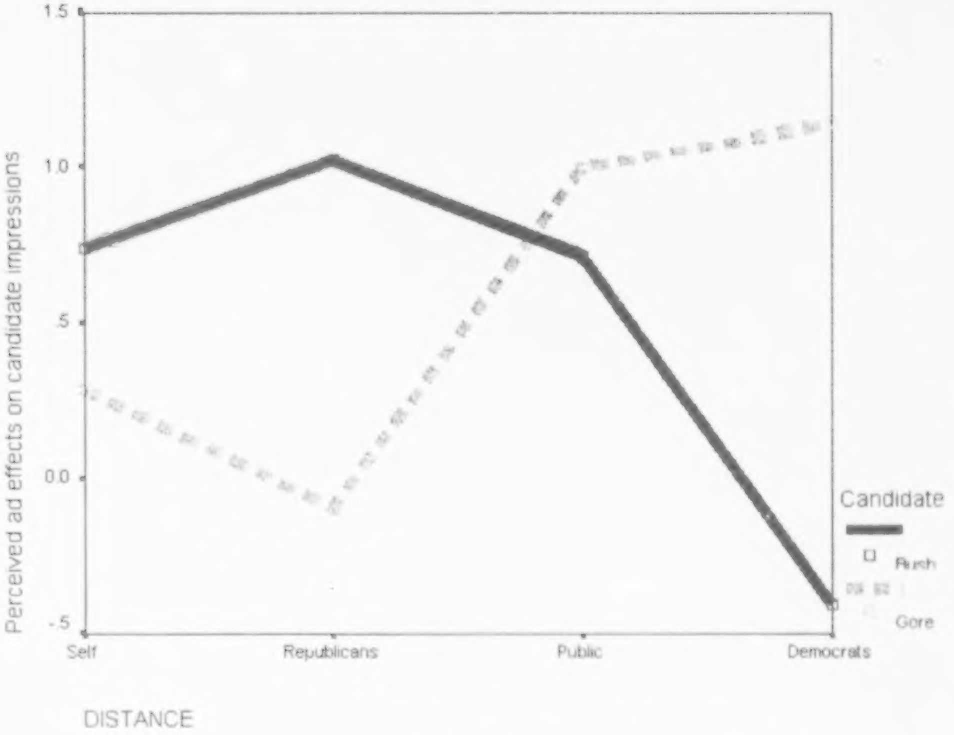
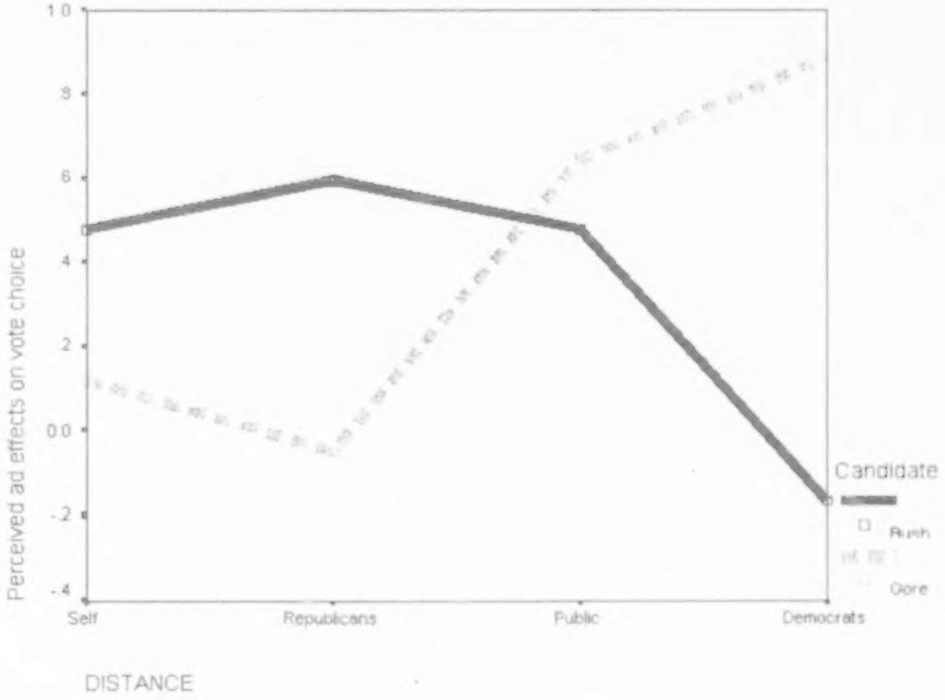


Figure 7



GOP students' ratings of effects on impression

Figure 8



GOP students' ratings of effects on voting

CT+M

Substantive and Affective Attributes on the Corporate Merger Agenda:

An Examination of Second-Level Agenda-Setting Effects

- **Abstract** -

Two broad sets of attributes on the merger agenda were investigated to find whether the transfer of attributes of agenda from the media to the public occurred.

Results showed that media affective attributes have varied with time and media types. Combining content analysis and Gallup Poll results, this study revealed there have been similar patterns between public opinion on the corporate mergers and media's substantive and affective attributes on the merger agenda.

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Substantive and Affective Attributes on the Corporate Merger Agenda:
An Examination of Second-Level Agenda-Setting Effects

Introduction

At a price tag topping $160 billion, AOL's purchase of Time Warner was the biggest merger ever, combining the world's top Internet service provider with the world's largest media company. Spurred in part by the information super highway and a corporate friendly-revised telecommunications bill, the fledgling Internet start-up has matured to the point of being able to swallow the old Goliath. Several largest recent mergers such as Viacom/CBS, AOL/Time Warner have created enormous amounts of publicity, in part perhaps because they have broken records of monetary levels involved in transactions. However, their relevance to our lives would be a more convincing reason to focus on these momentous events.

In proportion with the media's great attention on merger events, the merger critics have voiced worries that the movement toward ever larger conglomerates will results in more uniformity instead of the diversity that the Internet is supposed to exemplify (Goodman, 2000). But the critical voices seem to be heard only behind the ode to the merger news.

Given the nature of corporate merger events, it is not likely that merger news would cross our mind without the media's interpretations. That is, regardless of our awareness, the elements in the media picture of merger become prominent in our minds. This has been a core concept of media agenda-setting theory; borrowing heavily from the metaphoric idea in Walter Lippmann's classic book, "Public Opinion." Arguably, there is no other news topic where the media agenda-

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setting effect has such potentially far-reaching consequences as economic news (Blood and Phillips, 1997).

Unlike mass media's unprecedented attention on the merger news, relatively little research has addressed merger coverage in the mass media, let alone its impact on publics. Moreover, most research dealing with merger stories has focused more on the media economics' view than on media effects' side. The purpose of this paper is to fill the lacuna by examining what the media report about the merger and how the report affects public issues and attitudes toward the events. Therefore, the distinction of the technical terms of "merger," "acquisition," and "consolidation" was not considered here (for this discussion, see Chan-Olmstead, 1998). A basic assumption of this research is that the media framing on the merger event might predominantly affect how Americans think about it. It would be a suitable opening gambit for the second level of agenda-setting study because it is likely that if the media covered a specific attribute with a positive view, people would think favorably of the attribute.

Theoretical Framework

Second-Level Of Agenda Setting

At the most general level, agenda setting means the transference of salience from the media to the audience members (Takeshita, 1997). Conceptually, agenda setting involves the social learning of the relative importance of issues through the coverage that the issues receive in the news media (Wanta, 1997). The possibility of expanding the conceptual domains of agenda beyond the original level of agenda of issues has sometimes been discussed (Benton and Frazier, 1976; Weaver, Graber, McCombs and Eyal, 1981, McCombs, 1992). Despite its possibility of

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broadening the conceptual boundary, agenda-setting research has had an issue-centered bias for a long time (Takeshita, 1997). Kosicki(1993) argued that the dominant agenda-setting research has not examined the substance of an issue but dealt with only the shell of the topic.

Derived from psychological and sociological perspectives, framing theory has taken the place where agenda-setting research left off. The media framing studies typically define news frames in terms of ideological or value perspectives (Iyengar, Simon, 1993). While agenda-setting research has focused on the shell of topics imbedded within media coverage, framing gradually has demonstrated a reciprocal relationship between frames in the text and these event schemata in the audience's thinking (Goffman, 1974; Entamn, 1991; McLeod et al., 1994; Rhee, 1997; Price and Tewksbury, 1997).

Paying special attention to the possibility of linkage of framing with the agenda-setting theory, McCombs came out with "a salience of perspectives" (McCombs, 1992). He argued that agenda setting is about more than issue or object salience. An important metaphor was employed to elaborate the theory. He further argued that while every agenda consists of a set of *objects*, in turn, each of these objects possesses a set of *attributes* (McCombs, 1992). In specific terms, attributes consist of two components. One is designated as a substantive dimension by McCombs. The other is an affective dimension that could be codified in terms of positive, neutral or negative affect (McCombs, 1997). Ghanem(1997) extended the dimensions of frames or attributes into four dimensions. Compared to McCombs's two units of attributes, however, the distinctions may not be parsimonious in terms of theory building. In other words, there is a problem of how to apply the four dimensions on a specific agenda.

Takeshita(1997) discussed four functions of frames identified by Entman(1993) to define attributes of agenda operationally. As a research strategy, he recommended researchers focus on four dimensions: problem definition, causes, moral judgment, and proposed remedies. But in applying the concept to a procedure of measurement, he included just two dimensions – problem definition and moral judgment – from them.

Increasingly, researchers are aware that agenda setting is more than the transmission of issue salience. Among earlier researchers, Benton and Frazier(1976) earlier tried to extend the agenda-setting function by examining various levels of people's information holding. Their examination of one object on the issue agenda, the economy, showed two sets of attributes: the specific problems, causes and proposed solutions associated with the general issue; and the pro and con rationales for economic policies.

Blood and Phillips(1997) also chose the U.S. economy as a general topic to observe an ongoing generic pattern of economic news coverage over the time frame studied. They then compared it to more sporadically occurring economic news issues such as energy, inflation, recession, or unemployment. Even though they didn't employ the term of the agenda of attributes, their sub-issues reflected substantive attributes of economy agenda. In their findings, negative economic headline news was found to have a significant and negative impact on subsequent consumer sentiment at all lag lengths.

Another study tried to address the possibility of transmission of attributes in an agenda-setting situation. Through demonstrating long-term effects of the media agenda on voting preferences and other types of political perceptions and attitudes, Brosius and Kepplinger(1992) argued that the agenda-setting function of the mass media is not limited to salience effects on the public's agenda. Huckins(1999) focused on second-level effects in testing attributes of coverage before and after the Christian Coalition's agenda shift. Through a content analysis of major U.S newspapers, he found that tone and terminology shown in the papers changed more positively toward the Coalition.

Kiousis(1999) tried to test priming and the second level of agenda-setting by comparing media coverage with public opinion on Clinton's presidency regarding the Monica Lewinsky scandal. Arguing that the agenda of attributes appears closely tied to the concept of priming on the surface, Wanta and Chang(1999) also investigated how the public perceived the President through media portrayal with the same topic of the Monica Lewinsky scandal. In a more systematic study of the second-level of agenda-setting and priming, they also found individuals who first thought of the sex scandal or another negative opinion tended to disapprove of the job performance of the President.

Ironically, the second level of agenda-setting theory is a return to the older affective venue with new theoretical guidance on when media effects on attitudes and opinions might occur (McCombs, 1997).

Framing Mechanism

When examining media frames, emphasis given to topics such as placement and size as well as other elements that influence the prominence of a news item needs to be considered (Ghanem, 1997). The framing of news stories are suggested by particular devices that are accessed early in the processing of the stories. These devices include headlines, leads, pull quotes and nut graphs (Severin and Tankard, 1997). Ghanem(1997) emphasized the "framing mechanism" labeled by Tankard and his colleagues as one of the dimensions of frames. She argued that this aspect of salience needs to be examined when we are looking at the relationship between the salience of items on the media agenda and the salience of those items on the public agenda.

(1) Quotation

To a large extent, news coverage is the sum of quotations in the news over time (Salwen, 1995). Through experimental research findings, Gibson and Zillmann(1993) showed that direct quotation is a powerful tool that can be used to influence news media consumers' perceptions of reality and judgments of issues. Direct quotations represent the unfiltered comment of sources (Weaver et al., 1974; Culbertson and Somerick, 1976). Quotations are selected and rejected by gatekeepers (Salwen, 1995). Thus, selected quotations are important in that they might reflect the maps of reality sketched by mass media.

(2) Balance

Agenda-setting theory holds that over time, issues given more attention by the media will come to be deemed more important by the public (Rogers et al., 1988; Fico and Soffin, 1995). By extension, then, if particular points of view on a single issue are given more attention than others are given, its public salience will increase and thereby alter the public debate resolving the issue (Fico and Soffin, 1995). However, until now, little scholarship has used quantitative techniques to define balance on the journalistic side. The abstractness of the term might be ascribed to one of the research problems. McQuail suggested balanced reporting be understood in different ways, depending mainly on the number, relevance and status of the parties involved in an issue or event (McQuail, 1992).

Media Merger Impact Studies

One of the crucial issues regarding mergers nowadays is whether the public and its interest are best served within this new concentrated high-tech era, or whether the beneficiaries are only those who stimulate these changes (Iosifides, 1999). Critics of the effects of large media empires have argued that these companies produce commercialized, hegemonic communications influenced by the interests and perspectives of the dominant corporations involved in the production and distribution of information and cultural products (Picard,1996). Even if conflict of interest was not a problem, if media ownership concentration meant a decrease in the diversity of ideas, democracy would be undermined because media have a great impact on society (McCombs, 1987).

Lacy and Riffe (1994) examined the impact of group ownership and competition on news content and the news department. Even though group ownership had no effect on news coverage in all-news radio, they argued that does not mean owners have no effect on how news is covered at those stations; rather, "it means group owned stations are not systematically different from independently owned stations. Research that examines the effects of circulation and ownership (i.e., chain vs. independent) on editorial content provides some support for the loss-of-autonomy model (Wackman et al., 1975; Demers, 1993). Exploring the effects of change of ownership on the *Courier-Journal*'s content, Coulson and Hansen(1995) found that the *Journal* substantively increased the size of its news and photo content and decreased the percentage of space devoted to advertising. However, their other findings were negatively related to their quality index and consistent with evidence that indicated group acquisition of newspapers does not benefit readers.

Recently, Lee and Hwang (1997) examined the possibility that the status and integrity of the news division would suffer in a giant media corporation because the parent company may have other priorities. As a result of the loss of journalistic autonomy, they argued, news could be used to serve the parent corporation's interests, which is sometimes in the name of "synergy" (Lee and Hwang, 1997).

As seen in the previous achievements in our field, much scholarship has dealt with the topic of mergers or ownership structure, linking it to journalistic autonomy. However, the present study examines how the merger itself has been portrayed in the mass media as well as how merger reports influence the public perceptions on the merger event.

Hypotheses

The main purpose of this study is to shed light on the second level of agenda-setting process by comparing substantive and affective attributes in merger coverage in the U.S mass media with those attributes held by the public.

Through monitoring public opinions on the corporate merger, it was found that the public perceptions or attitudes toward the issue are obviously complex. Americans tend to agree that mergers of large corporations are bad for workers, while at the same time indicating that the mergers may be good for the economy.

[Table 1] Gallup Poll Results: Public perception on the mergers' impact on individual workers N=1,044

	Good for the workers	Bad for the workers %	Mixed %	No opinion %
2000 Jan 25-26	31	55	7	7

[Table 2] Gallup Poll Results: Public perception on the mergers' impact on the economy N=1,044

	Good for economy %	Bad for economy %	Mixed %	No opinion %
2000 Jan 25-26	49	35	8	8

Despite negative assessments of the impact of mergers on workers, Americans believe that such mergers are good for the economy overall, with 49% taking that view, compared with 35% who say they may be bad (Table2).

The following result is important because it reflects Americans' attitude toward the merger. In April 1998, when Gallup first asked Americans whether government should allow mergers or do more to stop them, slightly more than half the respondents said the government should do more to stop them. Later, in December of that year, another Gallup Poll revealed the same pattern of responses. However, Americans have become more positive in the January 2000 poll (see the following Table 3).

[Table 3] Gallup Poll Results: Public Opinion on Government's Merger Regulation Policy

	Should allow %	Do more to stop %	No opinion %
2000 Jan 25-26	46	43	11
1998 Dec. 4-6	37	55	8
1998 Apr. 17-19	40	51	9

Another distinctive change in a public perception on the merger was monitored regarding its impact on consumers.

[Table 4] Gallup Poll Results: Public perception to the mergers' impact on consumer
N=1,044

	Good for consumers %	Bad for consumers %	Mixed %	No opinion %
2000 Jan 25-26	41	45	9	5
1998 Dec. 4-6	31	54	10	5
1998 Apr. 17-19	30	58	7	5

To delineate the correspondences between the merger coverage and the poll results, this study posits the following hypotheses.

Hypothesis 1: The affective attributes of corporate mergers' agenda in the U.S. mass media are strongly associated with those of the public.

H1-a. American media in 1999 and 2000 will portray the substantive attribute of *consumers* with more *positive attributes* compared to 1995.

H1-b. American media in 1999 and 2000 will portray the substantive attribute of *industry* with more *positive attributes* compared to 1995.

H1-c. Affective attributes on the substantive attribute of *labor* have not changed during the two time periods examined.

While Wanta and Chang (1999) examined the media difference in their second level of agenda-setting research, they did not identify affective attributes in their path model. Kiousis (1999) also examined the media channel difference in the second level in his Monica Lewinsky study. Interestingly, he found that public opinion's shift in the Monica Lewinsky scandal is best characterized by a peripheral route of persuasion rather than a central route. But both studies didn't adopt different dimensions of attributes. However, McCombs' Spanish election study found *a medium of communication pattern* in attributes agenda transmission (McCombs, 1997).

During the periods examined in this research, both ABC and CBS made historical merger deals. Therefore, TV networks seemed to portray both their merger news and other merger news more positively than newspapers did. Based on these assumptions, this study addresses the following hypothesis.

Hypothesis 2: The affective attributes of the merger agenda on television will be more positive than those of merger agenda in newspapers.

Second level of agenda-setting research also needs to be examined in terms of framing mechanisms such as size, quotations and degree of balance as this study has discussed earlier. Previously defined framing mechanisms also reflect journalistic considerations. To explorer this uncharted area, this study also states the following hypothesis.

Hypothesis 3: The affective attributes of the merger agenda in the mass media will be positively related to framing mechanisms such as the number of quotations, the number of perspectives, and degree of balance.

Method

Data

This research draws on three sources of data. First, the Gallup Organization trend survey results were monitored to compare with media content analysis results. In addition, Princeton national survey for Newsweek data was also used. The two poll results are important in that they measured public perceptions and attitudes about the AOL and Time Warner merger in several substantive dimensions. The third source of data is a content analysis of two television networks' (ABC and CBS) reports and two major newspapers' (The LA Times and The New York Times) articles dealing with the merger stories during the period when major communication mergers were announced.

Each six-month period encompassing major media merger events in 1995 and 1999 to 2000 was selected. In 1995, two big mergers were announced: Time/Turner Broadcasting and Disney/ABC. The periods included from July to December in 1995. In 1999, CBS was purchased by Viacom. Finally, came the record-breaking merger between Time Warner and AOL in January 2000. Beginning in August of 1999 until January 2000, the merger stories of the major newspapers and two networks were selected.

Lexis/Nexis database provided useful archives for the merger coverage. "A news article/report" on the merger between American corporations is the unit of analysis in this study.

Sampling

This study employed a purposive sampling method. Network news transcripts that have "merger" in their headline were selected. In the case of newspapers, only articles written by the staff of the newspapers were included. Therefore, business briefing news (i.e. "business digest" of the New York Times), mostly wired by other news agencies like AP or the Bloomberg Business News, was excluded in the analysis. Most news articles having staff bylines provided more detailed and value-driven interpretation than the wired news or company digest news.

Measures and Procedures

Substantive Attributes of Media Agenda on Merger Coverage

Since many articles have multiple substantive attributes, this research made judgments based on some criteria such as which attribute that the headline or lead dealt with, or how much of the report was devoted to each substantive attribute. Almost all the news stories could be posited to six exclusive dimensions.

Each substantive dimension referred to:

(1) Industry: This category includes global and national competition, merger size in industry (e.g. rank, total assets, bigger is better, etc.), technology(e.g. convergence, internet revolution, direct TV, etc), possible merger prediction, reshaping industry.

(2) Management: This category includes shareholders, stock price report, efficiency, ownership, CEOs stories.

(3) Consumer: This category includes expenditures (e.g. bills, fees), privacy, quality and service, consumer choice.

(4) Labor: This category mainly dealt with layoffs.

(5) Media content: This category includes news manipulation, pressure on news or production, diverse voices or views, news quality and programming.

(6) Policy: This category includes media coverage of deregulation policy, telecommunication bill, anti-trust issue, or approval of merger from government.

"Intra-coder reliability" was measured using test-retest method at two points in time (North et al., 1963). This method is useful in that it tests whether slippage has occurred in the single coder's understanding or application of the protocol definitions (Riffe et al., 1998). As a result of re-testing 20 percent of the sample at different times, this study yielded a pretty reliable Scott's Pi(Pi=.90).

Affective Attributes of Media Agenda on Mergers' Coverage

All of those substantive attributes were codified using a five-point scale from strongly negative to strongly positive. News items that used direct negative words in the headline or lead were considered having "very negative attributes." For example, "concern, "criticized, "concentrate," "(job)be eliminated," "(news) Manipulate," "increasing fees," "cast a wide shadow" in the headline or lead were categorized into very negative attributes. In turn the headline or leads that have positive nuance like "applaud" were treated as having "very positive attributes." When the headlines and leads were written in terms of neutral words (e.g. announce, acquire, transform, etc.), the entire stories were scrutinized to distinguish the affective attributes. When there were two different affective attributes (i.e. positive/negative) together in the entire stories, weight was given to more prominently covered attribute (e.g. according to the location and size).

To reduce any innate bias in a single coder, a graduate student majoring in linguistics worked with the researcher in this item. After conducting trial runs, two different coders tested 10 percent of the sample selected by random sampling. After all discrepancies were discussed, reliability was obtained for both media affective attributes and source affective attributes. Inter-coder reliability for media affective attributes was alpha=.72(Std item alpha) and for source affective attributes was alpha=.86.

Framing Mechanism

Several items that could explain the "framing mechanism" were measured in this study.

(1) Quotations

This research codified the "direct quotation" of newspapers to measure the framing mechanism. By the same token, "direct interviews" on television news broadcasts were codified as direct quotations. However, the direct quotations were just limited to different ones referred by different sources. Therefore, even five direct quotations addressed by the same person were considered one quotation. The reliability for the item was alpha=.98.

(2) Balance

The principles of assessing the balanced story followed a previous study (Fico and Scoffin, 1995). Each story was analyzed on the following criteria. (1) How many sources on each side of the controversy were able to have their say; (2) whether the assertions of one or both sides were cited in headlines, in the paragraph; (3) whether the assertions of one or both sides were cited within the first five paragraphs of the story; or (4) were confined to the last half of the story.

On each of these four qualities, stories were assessed from strongly unbalanced to strongly balanced using a five-point scale. Alpha for this item yielded .77.

(3) The number of words (Length)

Instead of total size or time, this study used total words as the prominence of coverage.

Data Analysis

The data were analyzed using three methods.

First, chi-square analyses were performed to test whether the frequencies of each substantive attribute obtained by both newspapers and television news differ significantly. Then, the cross tabulation also examined the statistical difference in the frequencies observed between 1995 and 1999 to 2000.

Second, ANOVA was then run to test the mean differences between different media on the affective attributes of the merger agenda.

Finally, a hierarchical regression method was employed to analyze relative contributions of independent variables in predicting media framing of affective attributes on merger stories. Five blocks of independent variables were entered hierarchically. Media type and year variables were dummy coded.

Results

Of the 260 news items examined, 61.5 % were covered by the New York Times and LA times. The combined two newspapers and two network news stories of 1995 reached 49.2 percent of total coverage. Since largest media corporations announced merger deals in 1995 and 1999 to 2000, their stories were paid relatively high attention. Telecommunication and media corporate merger stories amounted to 60.4 percent, followed by banking (12.3%), pharmaceuticals (6.5%) and utility & gas(6.2%).

[Table 5] Percentage Distribution of Substantive Attributes on Merger Coverage by Media and Year

Substantive attributes of merger stories	Media		Year	
	Newspaper stories (%) n=156	TV News (%) n=100	1995 (%) n=126	1999 to 2000 (%) n=130
Industry	28.8	52.0	26.2	49.2
Management	35.3	17.0	34.9	21.5
Consumer	5.1	16.0	6.3	12.3
Labor	9.6	5.0	12.7	3.1
Media Content	7.1	2.0	6.3	3.8
Policy	14.1	8.0	13.5	10.0
	$X^2 = 30.19$; d.f.=5, $p<.001$		$X^2 = 24.5$; d.f.=5, $p<.001$	

Table 5 shows that the substantive attributes on the merger agenda have been changed significantly during the five years. About 50% of merger news reported the "industry" attribute in 1999 to 2000. While the substantive attribute of "industry" (the proportion rose from 26.2 % 49.2%) and "consumer" (rising from 6.3% to 12.3%) have significantly increased from 1995 to 2000, the "management" (dropping from 34.9% to 21.5%) and "labor" (decreasing from12.7% to 3.1%) attributes have decreased in contrast.

In Table 5, the number of stories varied across media, with more industry and consumer stories appearing on TV networks than in newspapers.

[Table 6] Mean differences on affective attributes of merger agenda between different media

	NYT		LA Times		ABC		CBS		F	Sig
	M	SD	M	SD	M	SD	M	SD		
Media	2.68^{a}	1.25	3.01^{b}	1.27	3.47^{c}	1.20	3.21^{b}	1.21	3.77	.011
Source	2.84^{a}	1.40	3.17^{bc}	1.47	3.89^{d}	1.37	3.55^{cd}	1.39	5.49	.001
Note: Tukey B Post Hoc Test: different characters mean for statistical differences in P<.05 level.										

Table 6 is the result of media difference in affective attributes on merger news. Especially, Tucky's B post hoc test was employed to compare the mean differences under 95 percent confidence level. The New York Times' and ABC network news's affective attributes were clearly different. When supposing a line with extremely different affective attributes (i.e. strongly negative vs. strongly positive), in general, the New York Times covered corporate merger stories with negative slant (M=2.68, SD=1.25). In contrast, ABC delivered slightly more positive attributes (M=3.47, SD=1.20). Mean value of the LA Times and CBS was not statistically different under 95 percent confidence level, while both of them differed with the New York Times and ABC.

In summary, the second hypothesis that "the affective attributes on the television merger news will be more positive than those in the newspapers" was supported.

[Table 7] Mean differences of the affective attributes on each substantive attribute on merger agenda between two time periods

	1995 (n=126)		1999 to 2000(n=130)		d.f.	T	Sig
	M	SD	M	SD			
Industry	3.12	1.11	3.56	1.04	95	1.94	.05
Management	3.20	1.27	3.36	1.25	70	.50	n.s.
Consumer	2.0	1.6	3.19	1.28	22	1.98	.06
Labor	2.0	1.15	2.0	1.15	18	.0	n.s.
Media Content	2.5	1.6	2.0	1.22	11	.59	n.s.
Note: 1: strongly negative attributes 3: neutral attributes 5: strongly positive attributes							

As observed earlier in Table 5, the substantive attribute of industry significantly increased (from 26.2% to 49.2%) during the five years. Not only did the amount of coverage of *industry* attribute increase between the two time periods examined, but also the substantive attribute of industry was portrayed more positively in the recent two years than in 1995 (Table 7). That is, American media in recent years have portrayed merger's impact on industry with more positive attributes compared to 1995. Therefore the hypothesis 1-b was verified.

The results of table 7 also confirmed the hypothesis that American media in 1999 and 2000 would portray the substantive attribute of *consumers* with more positive attributes compared to 1995(H1-a). While the consumer side of reporting in 1995 was in a negative view (M=2.0, SD=1.6), the same substantive attribute was dealt with positive attributes (M=3.19, SD=1.28) in the recent two years. However, the result of mean difference regarding consumer portrayal should be carefully interpreted in a significance level (t=1.98, p<.10).

Finally, this research predicted that the affective attributes on the labor attribute has not changed during the two time periods examined (H1-c). Stunningly, the mean scores for the affective attributes in labor coverage during the two time periods were the same. In other words, the media portrayal of merger's impact on labor side has not changed. Specifically, the labor issues were consistently covered with negative attributes. Therefore, the research hypothesis 1-c was supported.

Hierarchical regression results

This study hypothesized the affective attributes on the merger agenda would be positively related to framing mechanisms such as the number of quotations, the number of perspectives, and degree of balance. The hierarchical regression analysis results again showed that substantive attributes of "consumer," "labor" and "media content" were negatively correlated with affective attributes of merger stories. When other variables are controlled, the three substantive attributes explained 10 percent of total variance of affective attributes (R square change=.10, $p<.001$). Again, these results in Table 8 confirmed previous findings. In the previous findings, this study already made certain of the mean differences of affective attributes by media and years. Therefore, when summarized, these results again supported hypothesis 1 and hypothesis 2.

[Table 8] Hierarchical Regression Analysis of predictors of affective attributes on the merger coverage N=256

Blocks of Independent Variables	Reg.1	Reg.2	Reg.3	Reg.4	Reg.5
1. Media(TV)	$.12^{a}$	$.12^{a}$	.08	.02	.01
Year(2000)	$.16^{b}$	$.12^{a}$	$.14^{b}$	$.13^{b}$	$.13^{b}$
2. Management		.01	-.04	.05	$.10^{a}$
Consumer		$-.16^{b}$	$-.11^{b}$	-.03	-.02
Labor		$-.26^{d}$	$-.20^{d}$	-.09	-.08
Media Content		$-.17^{b}$	-.10	-.04	-.03
3. Number of perspectives			.08	.08	.06
Number of quotations			$.15^{b}$	$.19^{d}$	$.16^{c}$
Balance			$-.55^{d}$	$-.37^{d}$	$-.36^{d}$

4. Human interest				-.02	-.01
Conflict				-.41^{d}	-.40^{d}
Deviance				-.01	-.01
Prominence				.05	-.02
5. Economic significance					.10
Cultural significance					.10
Technological significance					.01
Political significance					-.05
R square	.05	.16	.45	.56	.58
Adjusted R square	.04	.13	.43	.54	.54
R square change	.05	.10	.30	.11	.01
Sig of change	.003	.000	.000	.000	.216

Note: 1. Figures in the cell are standardized Beta.
2. The independent variables in block 1 and 2 were dummy coded.
$^{a} <.10$ $^{b} <.05$ $^{c} <.01$ $^{d} <.001$

The hypothesis 3 was also partially accepted. While *the number of quotations* (Std. Beta= .15, p<.05) yielded positive correlation with positive attributes, the *balance* was negatively related with the affective attributes. The two independent variables remained in the final regression equation after other variables were entered. The framing mechanisms explained 30 percent of the total variance (p<.001).

Actually, the framing mechanisms in this study had more than variables entered in the regression equation. Excluded variables are "the number of sources" and "the lengths of coverage." Since the number of sources and lengths are highly correlated(r=.65, p<.001 for source; r=.69, p<.001 for length) with the number of quotations, those variables were removed for fear of multicollinearity. Because presence of high multicollinearity poses serious threats to the interpretation of regression coefficients as indices of effects (Pedhazur, 1982).

Discussion

Economic news critics have long been concerned with the power of economic news to influence consumer sentiment, or more generally, the ability of the media to sway public opinion (Blood and Phillips, 1997). Observing a great amount of merger coverage of U.S media in recent years, this research tried to examine how the mass media's framing of merger agenda would influence public perceptions and attitude about it. Based largely on McCombs's 1996 Spain election study and Ghanem's theory-building efforts in the second-level of agenda-setting effects, this research tried to elucidate the two different attributes of media agenda that could explain media framing processes. Then this study tried to show how the media' *framing mechanisms* are reflected in the media affective attributes of the merger agenda through a hierarchical regression analysis. This study then compared media affective attributes on several substantive dimensions of the merger agenda with two national survey data that showed public opinions about the agenda.

Significant correspondence was found between media affective attribute on the substantive attributes of *industry/ consumer* and the public affective attributes on them. In accordance with a significant shift of media affective attributes on industry and consumer attributes, public perceptions on those substantive attributes have significantly changed in the same direction of media. Especially, it is noteworthy that the affective attribute about substantive attribute of *labor* on the media merger agenda has not changed during the five years. Both the media and the public have kept negative attributes on the labor issue consistently. Therefore, it is likely that there has been a transfer of attribute salience from the media to the public agenda.

For future research, this study would like to suggest another aspect of second level of agenda-setting effects by referring to Table 9.

[Table 9] Newsweek National Poll Results [Jan.13-14, 2000, N=754, *The Polling Report*, 2000]

	Better %	Worse %	No Diff. %	Don't know %
"The price consumer have to pay for products and services"	19	49	26	6
"The choices of products and services available to consumers"	31	29	33	7
"How well companies take care of their workers"	17	46	27	10

As far as the "consumer choice" is concerned, the public has slightly more positive opinion on the issue. But as for "consumer price" issues like bills or fees, a clear majority of the public has a negative view on the merger. As things stand, the substantive attribute of *consumer* on the merger agenda might include other substantive dimensions such as "consumer choice," "quality and service." This dilemma mainly comes from not conducting an audience survey at the initial stage of this research. As Wanta and Chang(1999) pointed out, the recommendation of initial test of second level of agenda-setting research should start from a comparison of media coverage and an aggregated attribute agenda of publics.

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Optimistic Bias and the Third-Person Effect:

Public Estimations of Y2K Effects on Self and Others

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Abstract

This study gauged Americans' beliefs about predicted Y2K problems during the weeks before New Year 2000. It examined the presumed relationship between the third-person effect and optimistic bias. The third-person effect predicts that people judge themselves less influenced by media messages than others. Some third-person effect researchers have drawn on the psychological theory of optimistic bias, which posits that people judge themselves less likely than others to experience negative events. Findings indicated support for the third-person effect and optimistic bias of Y2K. But the study failed to find a hypothesized relationship between the two perceptual approaches. Furthermore, third-person perception and optimistic bias were functions of mirror opposite blocks of predictors. We suggested that people use different criteria to judge events and messages about the events.

Optimistic Bias and the Third-Person Effect:

Public Estimations of Y2K Effects on Self and Others

> *When December [999 A.D.] arrived mass psychosis and fanaticism appeared as well, springing from the dark side of human nature. Groups of flagellants roamed through the countryside, scourging each other and congregating in the market places of towns where they left trails of blood leading up to the doors of churches.*
>
> -- Description of Europe on the eve of the first millennium (Berlitz, 1981, p. 12).

The second millennium passed with hardly a problem, let alone the Apocalypse. But in the year, months, and days preceding New Year 2000, the news media were reporting potential widespread computer disruptions – the so-called Year 2000 or Y2K problem.[1] The most frightening predictions included nuclear power meltdowns, power outages, plane crashes, and unintended missile launches. An NBC network movie, *Y2K the Movie*, which aired six weeks before New Year, depicted these chilling scenarios. Several groups, including the Food and Drug Administration and the National Governor's Association, asked NBC to reconsider airing the movie. More forcefully, an electric utilities trade group urged 100 NBC affiliates to not show the movie. The trade group feared a response similar to the mass panic following Orson Welles' 1938 *War of the Worlds* radio program: "We are concerned the NBC film, coming just before the conversion, will fan flames of panic and unnecessary alarm" (Pollack, 1999, p. A24).

This study, administered five to six weeks before New Year 2000, examined Americans' beliefs about their own and other people's chances of experiencing Y2K problems and of believing news reports about Y2K. Poll results during 1999 revealed complicated public beliefs about Y2K. A mid-January Media Studies Center poll reported that 53% of Americans judged Y2K one of the most important problems facing the country (Freedom Forum, 1999). Yet, a *Wall Street Journal*/NBC poll found that two-thirds of Americans were largely unconcerned, anticipating only "minor problems." Still, almost half said they would stockpile food and water (Fialka, 1999). Americans also held complicated views about news coverage of Y2K. The Media Studies Center reported that 76% agreed that TV news and 69% agreed that newspapers report the news responsibly during crises such as Y2K (Freedom Forum, 1999). However, an agenda-setting study of 142 Americans in March 1999 found that the news media contributed to public discomfort about Y2K, with media exposure associated with heightened anxiety about computer problems (Hoff, Ralstin, Dillmann, & Bryant, 1999).

Furthermore, Gallup polls during 1998 and 1999 reported a persistent tendency for people to judge themselves less likely than other people to experience Y2K problems. In the last poll, in December 1999, Gallup reported that 34% of Americans expected major Y2K problems, 51% expected minor problems, and 10% expected no problems. When asked whether Y2K would cause problems *for them*, only 14% expected major problems, 53% expected minor problems, and 30% expected no problems (Newport, 1999; see also Moore, 1999, Saad, 1998). These findings were not surprising to researchers familiar with the psychological theory of "optimistic bias." The bias refers to people's perceived invulnerability to experiencing risk events. A *U.S. News & World Report* story, based on public opinion poll findings, referred to the perception as the "I'm OK, you're not" phenomenon:

> If you are like most Americans, you think you are a better than average driver. You believe your job and home will stack up pretty well against that of the typical Joe or Jane.... Much of the rest of the country, on the other hand, is going to ruin – or that's what you are likely to believe. Beyond your family and neighborhood,

> you see a nation where the economy has faltered and public schools have become mediocre or worse. (Whitman, 1998, p. 25)

Mass communication researchers have drawn on optimistic bias to analyze a similar phenomenon, the "third-person effect." The third-person effect, or "third-person perception," predicts that people judge media messages to have less influence on them than on other people. The presumed relationship between optimistic bias and third-person perception presupposes similar psychological processes. But are people's judgments about experiencing life events, on themselves and on others, comparable to believing messages about those events?

This study examined the relationship between the third-person effect and optimistic bias regarding predicted Y2K problems. In the language of optimistic bias, experiencing Y2K involves a "risk" assessment, operationalized as the perceived likelihood of experiencing a negative event. In third-person perception, believing a media message is a risk act. This conception of risk as a belief underscores an important distinction between the two perceptual approaches. People view susceptibility to media persuasion as a weakness, a risk. On the other hand, research indicates that desirable-to-believe messages diminish third-person perception. In some instances, desirable messages reverse the perception so that people estimate greater media effects on them (Eveland & McLeod, 1999; Innes & Zeitz, 1988; Gunther & Mundy, 1993; Gunther & Thorson, 1992).

By examining the relationship between the two perceptual approaches, this study highlights what each individually ignores. Third-person perception research usually disregards that people may have preconceptions about their chances of experiencing risk events such as computer breakdowns. It is conceivable that people may believe media messages judged as credible even while they judge themselves unlikely to experience the event (e.g., the possibility of a volcano in another country). Optimistic bias, on the other hand, assesses people's beliefs about experiencing risks without regard for how the media report the news about the risk issues. In so doing, this approach ignores that news coverage may influence risk assessments. A recent third-person effect study that simultaneously examined the two approaches astutely stated that the "two literatures remain largely unconnected despite the obvious similarities" (Chapin, 2000, p. 53).

Theoretical Framework and Hypotheses

Third-Person Perception

Sociologist W. Phillips Davison advanced the third-person effect in a seminal 1983 essay. Having abandoned further research, he was invited to write a retrospective essay more than a decade later and was surprised by the profusion of research (see Davison, 1996). Research findings have been robust and consistent (for reviews, see Lasorsa, 1992; Perloff, 1993, 1996, 1999). The effect has been confirmed with a variety of issues, including violent and misogynic rap lyrics (Eveland, Nathanson, Detenber, & McLeod, 1999; McLeod, Eveland, & Nathanson, 1997), television violence (Boynton & Wu, 1999; Salwen & Dupagne, 2000), pornography (Gunther, 1995), earthquake warnings (Atwood, 1994), political campaign news (Rucinski & Salmon, 1990; Salwen, 1998), and advertisements (Shah, Faber, & Youn, 1999). A recent meta-analysis of 32 studies with 121 effect sizes reported an overall effect size of r = .50 between media effects on self and on others (Paul, Salwen, & Dupagne, 2000). We tested the third-person effect's perceptual hypothesis with the Y2K problem:

H1: Individuals will judge themselves less likely than other people to believe news reports about Y2K.

Optimistic Bias

Working independently of Davison, psychologist Neil D. Weinstein (1980) conceived of optimistic bias (also known as biased optimism and unrealistic optimism) a few years earlier. Like third-person perception, optimistic bias enjoys robust support (see Harris, 1996; Helweg-Larsen & Shepperd, 2000, Weinstein, 1989a, 1989b). It has been studied with a variety of personal risk experiences, including contracting AIDS (Bauman & Siegel, 1987), being a crime victim (Perloff, 1983; Taylor, Wood, & Lichtman, 1983), suffering bungee jumping accidents (Middleton, Harris, & Surman, 1996), receiving inadequate health care (Culbertson & Stempel, 1985), and experiencing vehicular accidents (Rutter, Quine, & Albery, 1998; Svenson, 1981). We tested optimistic bias with the Y2K problem:

H2: Individuals will judge themselves less likely than other people to experience Y2K problems.

Relationship between Third-Person Perception and Optimistic Bias. Our interest is in the relationship between the two effects. Third-person perception and optimistic bias share a perceptual component – an awareness of the existence of others in their social environments and in their social judgments (Glynn, Ostman, & McDonald, 1995; Tyler & Cook, 1984). Indeed, the approaches are so similar that a critic might argue that third-person perception is a media application of optimistic bias. Referring to optimistic bias and other social-psychological theories, Peiser and Peter (2000) conceived of third-person perception as "only one manifestation of a more universal perceptual tendency, extending far beyond media effects...." (pp. 26-27).

Interestingly, in his original essay, Davison did not cite Weinstein's (1980) then recently published paper on risk perception that reported the "popular belief" that people judge themselves invulnerable. Subsequent third-person effect researchers, however, noted the similarity (e.g., Brosius & Engel, 1996; Chapin, 2000; Duck & Mullin, 1995; Duck, Terry, & Hogg, 1995; Glynn & Ostman, 1988; Gunther & Mundy, 1993; Paul et al., 2000; Rucinski & Salmon, 1990).[2] Drawing on optimistic bias, communication researchers viewed exposure to media messages as risk situations – the risk of susceptibility to persuasion. As Brosius and Engel (1996) stated, "The influence of the mass media can also be understood as a danger or a risk: it goes along with a restriction of one's own will and one's choice of activities, or at least many people think so" (p. 146).

Both optimistic bias and third-person perception are thought to provide self-serving functions, such as reinforcing self-esteem (Brown, 1986; Duck, Terry, & Hogg, 1995; Gunther & Mundy, 1993; Hoorens, 1993; Kennemer, 1990; Perloff, 1983; Perloff & Fetzer, 1986; Shapiro & Dunning, 2000; Weinstein, 1980; Weinstein & Klein, 1996; Wills, 1981) and providing illusions of control over situations (Atwood, 1994; Duck et al., 1995; McKenna, 1993; Taylor, 1983). But there are reasons to suspect that the effects may not involve similar processes. For one thing, it is questionable whether people perceive believing media messages as risk events or even events at all. For another, people may distinguish experiencing an event from believing messages about the event so that they can believe the message about the event while they find it undesirable to experience the event, and vice versa.

Paul and his colleagues (2000) urged third-person effect researchers to borrow "the operational measures and procedures in theory-oriented bodies of research to more convincingly demonstrate the link between third-person perception and psychological theories" (p. 80). With optimistic bias, this would involve integrating self-others judgments about experiencing a future event with self-others beliefs about believing media messages about the event. Some third-person effect studies that drew on optimistic bias used the same measures of "events" and "messages" (e.g., advertisements, news stories, etc.), where believing the message about the event was also the event. For example, Gunther and Mundy's (1993) study of commercial and public service messages hypothesized that optimistic bias predicted third-person perception when the "media message might have harmful consequences" (p. 61). Drawing on Gunther and Mundy's benefit-likelihood model, Brosius and Engel (1996) also examined a series of media messages, including news stories and campaign ads. While useful, these studies do not permit us to understand the empirical link between optimistic bias and third-person perception.

Recently, Chapin (2000) empirically *linked* third-person perception to optimistic bias in a study of safe-sex messages. He hypothesized that as third-person perception (the belief that individuals will be less likely to be persuaded by televised safe-sex messages than others) increases, optimistic bias (the belief that individuals will be less likely to contract HIV/AIDS than others) increases. Chapin failed to find support for the hypothesis, reporting a small negative relationship. He conceded that the prosocial safe-sex messages could have explained the non-supportive finding: "It is likely that the predicted positive relationship would emerge in a study using messages with negative cues, more typical of third-person perception research" (p. 74). Chapin's atypical prosocial message underscores the need to further explore the empirical link between optimistic bias and third-person perception. We predicted that:

H3: There will be a positive relationship between third-person perception and optimistic bias.

Predictors of Third-Person Perception and Optimistic Bias

With varying degrees of success, a growing body of research has sought to determine the predictors of third-person perception (see Lasorsa, 1992; Paul et al., 2000; Perloff, 1993, 1996, 1999). If third-person perception and optimistic bias are related, then we should expect both perceptions to share common predictors. Similar predictors would suggest a bond between third-person perception and optimistic bias.

We examined four sets of independent variables: demographics, media use, media coverage, and perceptions and adoption of new technologies. The last set of variables was selected because of its relevance to the study context dealing with new technologies. Overall, studies that have investigated the impact of demographics and media exposure on the third-person effect have produced equivocal results (e.g., Brosius & Engel, 1996; Lasorsa, 1992; Paul et al., 2000; Perloff, 1993, 1996, 1999).

Although perceptions of news of events might appear to be more relevant to third-person perception than to optimistic bias, risk communication researchers have recognized that the news media can contribute to people's judgments about experiencing risks (Coleman, 1993; Combs & Slovic, 1979; Darvill & Johnson, 1991; Guthrie, 1995; Singer & Endreny, 1993). For example, Tyler and Cook (1984) reported that *NBC News Magazine* stories about abuses in health care programs had an impact on the societal level, but not on the personal level, risk judgments. As noted in the introduction, an agenda-setting study found that the news media contributed to public discomfort about Y2K, with media exposure associated with heightened anxiety about computer problems (Hoff et al., 1999).

Since Y2K involved a computer-related problem (i.e., computers and the Internet), it is pertinent to consider how perception and adoption of new technologies may influence third-person perception and optimistic bias of Y2K effects. It is now well established that attitudes toward media technologies predict adoption of new technologies (e.g., Atkin, Jeffres, & Neuendorf, 1998; Lin, 1998, 1999; Lin & Jeffres, 1998). Adoption of innovations refers to "a decision to make full use of an innovation as the best course of action available" (Rogers, 1995, p. 171). In making adoption decisions, people evaluate the complexity and relative advantages of innovations. Rogers (1995) defines these attributes as "the degree to which an innovation is perceived as relatively difficult to understand and use" (p. 242) and "the degree to which an innovation is perceived as being better than the idea it supersedes" (p. 212), respectively. We will explore three diffusion constructs in this study: adoption, complexity, and relative advantage.
The following hypothesis was tested:

> H4: Predictors of third-person perception will be similar to those of optimistic bias.

Method

Data Collection

A representative national telephone survey of 486 adults (age 18 and older) was contacted five to six weeks before New Year 2000. Respondents assessed their own and other people's chances of experiencing Y2K problems (i.e., optimistic bias). They also assessed their own and other people's beliefs about being influenced by news coverage of Y2K (i.e., third-person perception). Since third-person perception involves perceptions of news coverage, the study examined respondents' judgments about the caliber of news coverage of Y2K. Furthermore, Y2K was a uniquely technological event. If the most harmful predictions came to pass, those most integrated into the nation's technological system would suffer. Therefore, the study also examined respondents' ownership of computer-related technologies and beliefs about new technologies. Finally, several demographic and media use measures were included.

Interviewing commenced on the evening of Monday, November 22, 1999, the day after NBC aired *Y2K the Movie*. Because of the movie's potential to affect the results, respondents were asked whether they watched all or part of the movie. Additional calling was conducted during the evenings of November 23, 24, 29, 30, and December 2. Trained graduate and undergraduate students conducted the interviews from a central university facility. The sampling frame was the 2000 edition of a national telephone directories database (*104 Million Businesses and Households*, 1999). To ensure that respondents with unlisted numbers were included, the last digit of each randomly selected number was randomly changed. After up to five callbacks, the completion rate was 57% and the response rate was 41%.[3]

Measures

Third-Person Perception. Congruent with past research, third-person perception was measured by computing the difference between respondents' *others-effect* scores and their *self-effect* scores. The operational measures of *others-effect* and *self-effect*, respectively, were: "News coverage about Y2K has had a significant impact on other people's beliefs about Y2K" and "News Coverage about Y2K has had a significant impact on my beliefs about Y2K." Respondents evaluated the questions using 5-point Likert-type scales from *strongly disagree* (1) to *strongly agree* (5).[4]

Optimistic Bias. Optimistic bias was similarly measured by subtracting respondents' *others-bias* scores from their *self-bias* scores.[5] The operational measures of *others-bias* and *self-bias*, respectively, were: "Y2K will cause a lot of problems for people in this country" and "Y2K will cause a lot or problems in my personal life." Responses to both questions ranged from *strongly disagree* (1) to *strongly agree* (5).

Perceived News Coverage of Y2K. Perceived media coverage of Y2K was measured by asking respondents the following question: "The news media have done a good job reporting about Y2K." Responses ranged from *strongly disagree* (1) *to strongly agree* (5).

Perceptions of New Technologies. Based on a pretest with 64 undergraduate communication students, we constructed scales of perceived complexity and perceived relative advantage of new technologies. The complexity scale included four items: "Learning new technologies is a frustrating experience for me," "I find new technologies intimidating," I often feel anxious when I use new technologies for the first time," and "I am often afraid that new technologies may not work properly" (Cronbach's *alpha* = .71). The relative advantage scale also included four items: "I enjoy the technical improvements that new technologies bring me," "New technologies make may life easier," I feel that new technologies are superior to older technologies," and "I think that new technologies give me more control over my life" (Cronbach's *alpha* = .76).

Adoption of Computer Technologies. The study assessed whether respondents had three computer-related technologies at home: a computer, subscription to an Internet service, and a digital camera. Each of these variables was dummy coded (yes = 1, no = 0) and subsequently combined into a summated adoption index ranging from 0 to 3.

Demographics. Demographic measures included age, race, annual household income, gender, and education. Interviewers asked respondents their age (open-ended), race (white = 1, non-white = 0), income (five categories ranging from less than $25,000 to more than $100,000), and recorded gender (male = 1, female = 0). Respondents assessed their education using a 7-point scale ranging from *eighth grade or less* (1) to *graduate degree* (7).

Media Use. To measure media use, respondents were asked open-ended questions regarding how many a days a week, if any, they read a newspaper; how many hours a day, if any, they watched television; how many days a week, if any, they watched a news program on television; and how many hours a day, if any, they listened to radio.

Analysis

Paired t-tests and correlational analysis were used to test the first three hypotheses. Consistent with previous research (e.g., Bereck & Glynn, 1993; Rucinski & Salmon, 1990; Salwen, 1998; Salwen & Dupagne, 1999), we use hierarchical regression[6] to determine the significant predictors of third-person perception and optimistic bias. Demographics (age, education, income, gender, and race) were entered first, followed by media use (television viewing, television news viewing, newspaper reading, and radio listening), media coverage of Y2K, and new technologies (complexity, relative advantage, adoption of computer technologies).

Findings

Sample demographics reflected U.S. population parameters. The sample was 54% female. The median age was 41. The mode level of education was some college (31%), followed by an undergraduate degree (28%) and a high school degree (22%). More than 17% were non-white. The mode annual family income was between $25,000 and $50,000 (33%).

Some other summary statistics included: days per week reading a daily newspaper (*M* = 4.24, *SD* = 2.79); days per week watching a news program on television (*M* = 4.81, *SD* = 2.48); time spent watching television on a typical day (converted into minutes, *M* = 189.54, *SD* = 460.73); and time spent listening to radio on a typical day (converted into minutes, *M* = 152.98, *SD* = 148.75). About half (51%) the respondents agreed that the "news media have done a good job reporting about Y2K" (coverage of Y2K, *M* = 3.22, *SD* = 1.13). The mean and the standard deviation of the complexity scale were 2.82 and 0.82, respectively. Those of the relative advantage scale were 3.75 and 0.70. Two-thirds (67%) of the respondents owned a computer and a near majority (49%) subscribed to an Internet service. However, only 16% owned a digital camera. The mean and standard deviation of the adoption scale were 1.32 and 0.[illegible], respectively

Hypothesis 1: Third-Person Perception. Table 1 indicates strong support for third-person perception. Respondents judged news coverage of Y2K to have a significantly greater effect on others ($p < .001$). An overwhelming 69% majority exhibited third-person perception, 25% exhibited no perceptual difference, and only 6% exhibited a first-person tendency, or reverse third-person perception, to perceive greater effects of news coverage of Y2K on them.

Hypothesis 2: Optimistic Bias. Table 1 also indicates support for optimistic bias ($p < .001$). However, the magnitude of support for optimistic was less than for third-person perception. A plurality of 34% exhibited optimistic bias while 3% exhibited a reverse tendency to believe they were more likely to experience Y2K problems than others. A 63% majority exhibited no optimistic bias difference. Respondents exhibited greater third-person perception ($M = 1.44$, $SD = 1.46$) than optimistic bias ($M = 0.49$, $SD = 0.93$), $t(447) = 11.84$, $p < .001$.[7]

Hypothesis 3: Relationship between Third-Person Perception and Optimistic Bias. Hypothesis 3 predicted a positive relationship between third-person perception and optimistic bias. This hypothesis was not supported ($r = .04$, ns). A relationship, however, is not the only indicator of concept linkage. In the subsequent hypothesis, we examine whether the perceptual approaches shared common predictors.

Hypothesis 4: Predictors of Third-Person Perception and Optimistic Bias. Hypothesis 4 stated that the predictors of third-person perception would be similar to those of optimistic bias. The findings, reported in tables 2 and 3, did not support the hypothesis. Each table reports four blocks of predictors and its "self" and "others" components (see Price et al., 1997; Rucinski & Salmon, 1990; Salwen, 1998; Salwen & Dupagne, 1999).[8] Third-person perception was largely a function of the news coverage and new technologies blocks, while the variables in these blocks did not predict optimistic bias. Optimistic bias was largely a function of the demographics and media use blocks, while the variables in these blocks did not predict third-person perception.

Looking at Table 2, perceived news coverage was the primary predictor of third-person perception of Y2K. Respondents who agreed that the news media have done a good job reporting on Y2K were less likely to exhibit third-person perception. News coverage was also a significant positive predictor of estimated media effects on self ($p < .001$) but not a predictor of perceived media effects on others.[9]

Table 2 also revealed that there was a negative relationship between perceived complexity of new technologies and third-person perception of Y2K. Respondents who agreed that new technologies are complex and intimidating were less likely to exhibit the perception. Component analysis revealed that the cause of the perception was due to estimated greater effects on self ($p < .05$). Complexity was not a significant predictor of perceived effects on others, although it was in the expected negative direction. Perceived relative advantage of new technologies was not a significant predictor of third-person perception. However, relative advantage was positively related to perceived effects on others.

No demographic or media use variables were significant predictors of third-person perception, estimated effects on self, and perceived effects on others. The total R^2 for third-person perception was .11 ($p < .001$). While the total R^2 value for the estimated media effects on self was .12, the total R^2 value for the perceived media effects on others was only .05 and not statistically significant.

Now we turn to optimistic bias (see Table 3). The primary predictor of Y2K optimistic bias was age. Younger respondents believed that Y2K will cause more problems for other people than for themselves. Component analysis indicated that the source of the bias was attributable to perceived effects on others. Race was a significant negative predictor of Y2K problems on others, indicating that non-white respondents were more likely to believe that others will experience Y2K problems. Both amount of television viewing and frequency of newspaper reading were significant predictors of optimistic bias. Respondents who watched more television believed that Y2K problems are more likely to happen to other people than to themselves. On the other hand, newspaper reading was negatively related to optimistic bias. In sharp contrast to the third-person effect findings, news coverage was unrelated to optimistic bias.

While perceptions of new technologies did not affect optimistic bias, they did influence its components. Respondents who agreed that new technologies are intimidating believed that Y2K problems will happen to them *and* to others. In the same vein, respondents who agreed that new technologies are superior to older technologies felt that both they *and* other people were less likely to experience Y2K problems. The explained variance of the others model (total $R^2 = 17$) was higher than the explained variance of the self model (total $R^2 = 13$).

Discussion and Conclusions

Mass communication researchers have looked to social psychology to explain the third-person effect, which predicts that people judge media messages to have less influence on them than on other people. Perhaps the most common psychological explanation is optimistic bias, which posits that people judge themselves less likely than other people to experience negative events. This study investigated the presumed relationship between the two perceptual approaches regarding the Y2K problem. On their face, both approaches appear similar. Both assume that people are motivated to reinforce self-esteem and protect them against undesirable situations. Yet, consistent with Chapin's (2000) findings, this study failed to find an association between third-person perception and optimistic bias.

To further explore the presumed relationship, we also regressed a series of predictors on third-person perception and optimistic bias. The two perceptual approaches had no shared predictors. What is more, third-person perception and optimistic bias were functions of mirror opposite blocks of predictors. Specifically, whereas predictor variables in the news coverage and new technologies blocks predicted third-person perception, variables in the demographics and media use blocks predicted optimistic bias. These diametrically opposed findings, combined with the near-zero correlation between the two perceptual approaches, underscore the distinctness of experiencing events and news media messages about events.

Other social psychology theories may explain third-person perception. To this end, researchers have referred to such theories as the Elaboration Likelihood Model and attribution theory (Gunther, 1995; Rojas, Shah, & Faber, 1996; Rucinski & Salmon, 1990; Stenbjerre & Leets, 1998). Few third-person effect researchers, however, have empirically examined the relationship between social-psychology theories and third-person perception. Standley's (1994) study of 23 television viewers is a noteworthy exception. She found that individuals reported dispositional reasons to explain the effects of television on others and situational reasons to explain effects on them, providing support for an attribution theory explanation.

If it turns out that theories from other disciplines do not satisfactorily explain the third-person effect process, this should not cause despair. Psychology is not a panacea with explanations for all behaviors. Weinstein (1989a), for example, bemoaned that robust support for optimistic bias does not explain why the bias occurs. Perhaps optimistic bias researchers can draw on mass communication to explain the bias, viewing media messages as external stimuli that influence risk assessments. The egregious omission of mass communication offers a ripe research area for further research. The fact that two media use measures were significant predictors of optimistic bias suggests that people make use of media messages in judging risk likelihood.

The present study yielded strong support for third-person perception and for optimistic bias, but a near-zero correlation between the two approaches. Why should the two presumably similar perceptual approaches be unrelated? The first step toward answering this question involves explicating the concept of an "event" in third-person perception and optimistic bias. The concept is ostensibly similar in that both perceptual approaches involve people's judgements about a stimulus' effect on them and on others. In third-person perception, the stimulus is the media message about an event; in optimistic bias, it is the experienced event.

There are significant differences in the stimuli of media messages about events and experienced events. When people make judgments about experiencing future events, such as contracting AIDS or experiencing computer breakdowns, they are usually thinking about distinct occurrences in time and place. Media messages, by contrast, are sources that are used – among other sources such as interpersonal messages, observing others' experiences, cultural beliefs, demographic characteristics, beliefs about others, and so forth – to make judgments about experiencing time and place events. Admittedly, it is possible to conceive of and design studies with a distinct time and place media message about an event that might be similar to the concept of an event in optimistic bias. This is done in news diffusion research, where researchers study people's first-time exposure to a media message (DeFleur, 1988). But in the present study design, as in most third-person effect research, people judged the totality of many media messages over time, in this case media messages about Y2K. Some of the messages may be evaluated positively and some negatively. With most, we suspect that respondents simply received the messages and made no evaluations. From this flow of messages about an event, researchers ask respondents to judge the messages' influence on them and on other people. The conceptual dissimilarity between events and media messages about events underscores their independence. Thus, people can judge themselves less likely than others to believe media messages about events while they judge themselves more likely than others to experience the events, and visa versa.

Regression findings regarding third-person perception highlighted a number predictors that build on past research. The failure to find evidence for demographic and media use predictors are consistent with previous equivocal research regarding these variables. The best predictors were "issue-specific" to the Y2K event under study. The best single predictor was news coverage of Y2K. Not surprisingly, respondents who evaluated news coverage of Y2K as "good" exhibited significantly less third-person perception. This study did not directly assess desirability of believing media messages. However, if we cautiously infer that it is desirable to believe news coverage judged a "good job," then the findings are consistent with past research on message desirability (Duck & Mullin, 1995; Gunther & Mundy, 1993; Gunther & Thorson, 1992).

Another useful issue-specific predictor involved attitudes toward new technologies– complexity and relative advantage. Y2K was a uniquely technological problem. Complexity was a negative predictor of third-person perception. The more complex and intimidating respondents judged new technologies, the less likely they were to exhibit the perception. Thus, not surprisingly, those who felt comfortable with new technologies judged news coverage of Y2K to have less effects on them. Perceived relative advantage of new technologies was not a significant predictor of third-person perception. However, respondents who agreed that new technologies are superior to older technologies also believed that news coverage about Y2K will influence others. Interestingly, the new technology adoption was not a significant predictor of third-person perception or its components. Thus, attitudes toward, not ownership of, new technologies influenced perceptions of media effects about Y2K.

The study had several weaknesses. For one, a single-issue study cannot adequately explain the relationship between judgments about experiencing events and judgments of media effects about the events. Researchers need to examine this relationship in multi-issue studies. In addition, it would have been advantageous had we measured general orientations toward news coverage without regard to news coverage of Y2K. Still, this study underscores the importance of drawing on social-psychology theories and using the operational measures and designs from these bodies of literature to better understand third-person perception.

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Table 1

Self and Others Effect Scores for Third-Person Perception and Optimistic Bias

	Others		Self			
	M	SD	M	SD	t value	df
Third-person perception	3.95	0.89	2.51	1.06	21.32***	460
Optimistic bias	2.50	1.07	2.01	0.80	11.38***	459

***$p < .001$.

Table 2

Predictors of Y2K Third-Person Perception and its Components

	Third-Person Perception beta	Effects on Self beta	Effects on Others beta
Block 1: Demographics			
Age	-.08	.07	-.04
Education	-.02	.02	.02
Income	.03	-.01	.01
Gender[a]	-.04	-.01	-.08
Race[b]	-.00	-.04	-.07
R^2 change	.03	.03	.02
Block 2: Media use			
TV viewing	-.05	.05	-.02
TV news viewing	-.02	.03	.01
Newspaper reading	-.02	-.02	-.06
Radio listening	.01	-.01	-.01
R^2 change	.01	.01	.00
Block 3: News coverage			
Coverage of Y2K	-.21***	.27***	-.05
R^2 change	.04***	.07***	.00
Block 4: New technologies			
Complexity	-.16**	.13*	-.08
Relative Advantage	.08	.01	.14*
Adoption	.03	-.05	-.01
R^2 change	.03**	.02	.03*
Total R^2	.11***	.12***	.05
Adj. R^2	.08***	.09***	.02
N	378	386	379

Note. [a]Coded as male = 1, female = 0. [b]Coded as white = 1, non-white = 0.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 3

Predictors of Y2K Optimistic Bias and its Components

	Optimistic Bias beta	Problems for Self beta	Problems for Others beta
Block 1: Demographics			
Age	-.21***	-.00	-.20***
Education	-.04	-.05	-.07
Income	.03	-.09	-.02
Gender[a]	.02	-.01	-.02
Race[b]	-.04	-.06	-.10*
R^2 change	.05**	.06***	.08***
Block 2: Media use			
TV viewing	.15**	-.03	.11*
TV news viewing	.07	-.04	.02
Newspaper reading	-.14*	.02	-.09
Radio listening	-.03	-.04	-.06
R^2 change	.04**	.00	.03**
Block 3: News coverage			
Coverage of Y2K	-.01	-.01	-.03
R^2 change	.00	.00	.00
Block 4: New technologies			
Complexity	.03	.14*	.13*
Relative Advantage	-.00	-.21***	-.16**
Adoption	-.04	-.04	-.06
R^2 change	.00	.07***	.05***
Total R^2	.09***	.13***	.17***
Adj. R^2	.06***	.10***	.14***
N	377	383	379

Note. [a]Coded as male = 1, female = 0. [b]Coded as white = 1, non-white = 0.
*$p < .05$. **$p < .01$. ***$p < .001$.

Notes

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[1] News reports incorrectly referred to the problem as a "bug." In fact, it was a programming problem traceable to the early years of computing. To save space, which was then at a premium, programmers used two digits to indicate the year. There were fears that, when the clock changed from 1999 to 2000, computers would recognize the year as 1900 and cause computer malfunctions.

[2] In addition to optimistic bias, third-person effect researchers have also drawn on other psychological theories. Other theories include attribution theory (Rojas, Shah, & Faber, 1996; Rucinski & Salmon, 1990), social identity theory (Duck et al., 1995), cognitive adaption theory (Atwood, 1994), and the Elaboration Likelihood Model (Stenbjerre & Leets, 1998). Researchers have also drawn from media effects approaches, such as agenda-setting (Matera & Salwen, 1999) and the spiral of silence (Willnat, 1996).

[3] The completion rate was computed by dividing the number of completions ($n = 486$) by the number of eligible persons reached, including 486 completions, 41 partials, and 331 refusals. Like the completion rate, the response rate excluded ineligibles ($n = 294$) and non-working numbers ($n = 513$), but unlike the completion rate, it included no-answers ($n = 325$). The total number of phone numbers initially dialed was 1990.

[4] To address whether back-to-back ordering of the self-others questions influenced outcomes, self-effects and others-effects questions measuring third-person perception were randomly alternated (e.g., Dupagne, Salwen, & Paul, 1999; Gunther, 1995; Price et al., 1998; Tiedge, Silverblatt, Havice, & Rosenfield, 1991). About half of the respondents ($n = 241$) were administered a questionnaire with self and then others questions while the

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other half (n = 245) were administered a questionnaire with others and then self questions. Question order did not affect the third-person perception findings.

[5] There are two primary ways to operationalize optimistic bias (Weinstein & Klein, 1996). In the direct comparison procedure, people estimate the extent to which they are at risk compared to others in the same statement. In the indirect comparison procedure, people estimate risks to themselves and to others in separate statements. This study used the indirect procedure because of its operational similarity to the third-person effect measure.

[6] Hierarchical regression allows researchers to estimate the impact of subsequent blocks of independent variables on the dependent variable beyond the impact of the first block, generally the demographic block (see Reagan, 1998). In the context of third-person effect research, the R^2 change statistic helps researchers to gauge the relative importance or contribution of various blocks of variables to the overall R^2.

[7] There were no significant differences in third-person perception or optimistic bias scores between respondents who watched all or part of *Y2K the Movie* (n = 67, 14%) and those who did not (n = 486, 86%).

[8] Component analyses permit inferences about whether perceptual results are largely attributable to overestimations of effects on others or underestimations on self (Price et al., 1997).

[9] According to the sign law, if the others beta is negative (-.05) and the self beta is positive (.27), then the sign of the third-person perception beta will be negative (-.21).

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Effects of Communication on Economic and Political Development: A Time Series Analysis

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Abstract

Using time series data from 1965-1996 in 107 nations, this paper reexamines effects of social, mass media and telecommunication indicators on economic and political development. Among the indicators of social development, urbanization showed a much stronger relationship with economic and political development than percent illiterate or school enrollment. Newspapers, radios, and televisions per 1,000 people all substantially predicted economic and political development. Only telephone mainlines per capita among the telecommunication indicators significantly covaried over the 32-year period of the study with both types of development.

Effects of Communication on Economic and Political Development: A Time Series Analysis

The geopolitical forces that shaped the world after World War II also significantly influenced the research agendas in the political science and communication fields. As Wiarda (1989-90) has described, the emerging Cold War and the newly formed nations that were freed from colonial dominance in the 1950s resulted in research in both fields being sponsored and used by policymakers. The foreign policies of developed nations were concerned with maintaining the political development of these newly independent nations as buffer against communism. The United Nations, at the same time, began to make huge investments in the mass media infrastructures of developing countries to enhance their economic development.[1] This paper reviews this research from the political science and communication fields and then offers a new analysis of factors influencing economic and political development from the perspective of the 1990s.

Early Studies of the Political Development Paradigm

Pye (1956) provided one of the first analyses of the importance of communication in the political development process. From his perspective, communication in developing nations performed a key function in structuring the political process. Based on case studies, he argued that the influence of communication on political structure differed in urban and rural areas. The Western-style mass media in urban areas tended to cover the political process from a national perspective, thus enhancing a sense of nationalism and support for developing political institutions. In more rural areas, where word of mouth was still the predominant form of communication, villagers remained oriented to local events, their opinions on which were influenced by informal opinion leaders. Pye noted that the urban frames of reference of newspapers had little meaning to villagers, when they were read to them in their villages.

Lipset (1959) focused on the relationship between economic development and the legitimacy of political systems. Lipset hypothesized that demo-cratic systems of government were more likely to flourish in wealthier nations, because only in them could citizens be expected to participate intelligently in the political process and avoid the appeals of demagogic authoritarian leaders. A country divided between a large impoverished mass and a small wealthy elite would likely result in political systems based on oligarchy or tyranny, according to Lipset.

Lipset (1959) provided correlational evidence that supported this hypothesis for Latin American, European, and other English-speaking nations. Stable democracies in these regions were higher than unstable democracies or dictatorships on all the main "indicators of wealth," as Lipset referred to them: per capita income, doctors, motor vehicles, telephones, radios, and newspapers per 1,000 people.[2] Urbanization, literacy, school enrollment, per capita energy consumption, and the percentage of nonagricultural workers were also higher in the countries with stable democratic regimes.

Similarly, Cutright (1963) tested the proposition that social, economic, communication, and political development were interrelated. To create an index of political development, Cutright assigned scores to 76 nations from 1940 to 1961 based on the degree of competition present among political parties and in elections of chief executives. Communication development, which was measured by an index of daily newspapers per 1,000 people, newsprint consumption, telephones, and pieces of domestic mail per capita, was the strongest predictor of political development, followed by degree of urbanization, school enrollment, and the percentage of the labor force engaged in agricultural work.

Deutsch (1956) conducted one of the first studies to measure communication flow among countries. His analysis of first-class mail flow among 48 countries prior to WW II showed that more than 75 percent of them received more letters from abroad than they sent. In the seven most industrialized countries, however, this ratio was reversed. Ratios of local to non-local mail also tended to decrease within larger US cities, as did ratios for non-local to foreign mail. Such national measures of "intake-output ratios," according to Deutsch, served as indicators of integration among countries.

Criticisms of the Political Development Paradigm

These and other studies generated considerable research, from which emerged the political development paradigm which posited that an array of socioeconomic variables, once they reached certain levels, would lead to more democratic and stable political regimes (see also Shannon, 1958; Schnore, 1961). The practical implications of this research for guiding the development aid programs of world powers and the UN in developing countries generated considerable debate in the 1960s. Wiarda (1989-90) summarized the issues this way:

- The political development paradigm was derived from Western experience and therefore was of limited usefulness in non-Western areas. As a result, the optimum outcome of political development was too often narrowly defined in terms of Western-style voting participation rather than a broader concern for political and civil freedoms.

- The timing and sequences of political development stages may differ between developed and less developed nations or from region to region.
- The complex webs of interdependencies among nations, which may affect their economic and political development, were not sufficiently investigated.
- The roles indigenous cultural or social institutions could play in promoting change and helping bridge the gap during the transition from traditional to modern societies were not studied. Some formulations of the political development paradigm suggested that those from Western countries should replace indigenous cultural or social institutions.

Some political scientists, in fact, argued that developing democratic political institutions too swiftly could hinder economic development. A proponent of this view was Huntington (1968), who stated that political democracy may be a luxury that developing nations could not afford. He argued that the pressures of participatory democracy could quickly overwhelm the political institutions of developing countries, which tended to be fragile to begin with, thereby magnifying the forces of instability. Therefore, more authoritarian regimes were better able to cope with the stresses of economic development.

Taken as a whole, the evidence concerning the political development paradigm was decidedly inconsistent. Sirowy and Inkeles (1990) reviewed studies that examined the economic consequences of different types of political regimes. Of the 13 studies they examined, three supported the conclusion that democracy may hinder economic development, six reported no relationship between democracy and economic growth, and four indicated a conditional relationship. Furthermore, half of another 12 studies indicated that democratic regimes actually reduced economic inequality or had no effect, while the other half suggested an inverse relationship between the two indicators.

Early Studies of the Development Communication Paradigm

An important focus of research in the communication field in the 1950s and 1960s was how mass media technology could be used to stimulate and modernize the economies and political systems of developing countries. The development paradigm that evolved from this research posited that indigenous people needed to abandon their traditional ways of thinking and life on subsistence farms to participate in the cash sector of the economy (see, for example, Melkote, 1991 and Moemeka, 1994). The quickest and most effective way of bringing this about was argued to be information campaigns disseminated via the mass media (See Schramm, 1964 and Rogers, 1976).

By the far the most influential early study shaping the development communication paradigm was undertaken in the Middle East by Daniel Lerner (1958). Lerner theorized that economic and political development resulted from a process that began when a country's population was about 10 percent urbanized. At that point, mass media and literacy growth interacted in a "multiplier effect" to produce a critical mass of citizens with "mobile personalities" who desire to participate in the economic and political life of their country. When a critical mass of such citizens is reached, which he predicted to be at about 25 percent urbanization, then economic development takes off, ultimately resulting in a democratic political regime, which Lerner termed the "crowning glory" of the process.

His secondary analysis of census data from Turkey, Lebanon, Egypt, Syria, Jordan, and Iran indicated that the percent voting in these countries was highly correlated with degree of urbanization, literacy, and media consumption. Survey results showed that "transitionals," those who were in the process of moving from traditional to more modern lifestyles, tended to have most recently moved from a rural to urban homes, had the highest exposure to media, and the most understanding and empathy for the role of the media. Furthermore, transitionals in the six countries had the highest recall of international news items, the greatest variety of opinions, and were most likely to believe that they could influence national problems.

Tests of the Lerner Model

Correlational evidence appeared to support the Lerner model of economic and political modernization. Per capita income, proportion of adults literate, and daily newspaper circulation, as derived from 1959 UNESCO data on 85 countries by Nixon (1960), were strongly correlated with degree of press freedom as rated by the International Press Institute. A regression analysis by Farace and Donohew (1965) showed that press control, newspaper circulation, and radio receivers per 100 people were significantly predicted by illiteracy rates, per capita income, ideological orientation of the country, population, life expectancy, and the legislative-executive structure in 115 countries in 1962. Economic and media development indices dominated in a factor analysis by Farace (1966) of 54 political, economic, and cultural indicators in 109 countries in 1964. A later analysis by Farace (1966) demonstrated that six distinct regional patterns existed among this group of indicators of national development.

However, causal analyses testing the Lerner model produced mixed results. Alker's (1966) path analysis of aggregate national data from the early 1960s showed that urbanization predicted literacy and media development, while literacy tended to predict economic and political participation indirectly through media development. Another path analysis by McCrone and Cnudde (1967) tested six alternative models of the basic variables in the Lerner model. The best causal fit to their data was one in which urbanization leads to education, which directly predicted communication development, which in turn led to higher voting participation.

Time series analyses provided stronger evidence on the Lerner model. Based on cross-lagged correlations from UN data from 1951 through 1961, Schramm and Ruggels (1967) concluded that per capita income and urbanization affected literacy in early stages of development more than the reverse case. Yet the causal relationships among per capita income, urbanization, literacy, and indicators of newspaper and radio development were not clear in their analysis.

Winham (1970) tested the Lerner model by utilizing time-series data on 10-year intervals in the United States from 1790. An index of political development was created for each 10-year period from a sum of scores for minority parties in the US Congress and a directly elected chief executive with a vote participation multiplier. Communications development was operationalized as an index of post office expenditures, total number of newspapers, and periodicals, as well as telephones, radios and television per capita. Time-lagged correlations indicated that communications were a stronger predictor of political development than *vice versa*. The same was found for the relationship between political development and education, but only after a 20-year lag. On the other hand, the US data indicated that communications development may precede urbanization, contrary to the Lerner model.

Criticisms of the Development Communication Paradigm

As with the political development paradigm, a reassessment of the communication developmental paradigm among communication scholars began in the late 1960s (see, for example, Schramm & Lerner; 1976 and Jayaweera & Amunugama, 1987). Also in part motivated by the policy implications of the research, the debate about the development communication paradigm produced criticism similar to that of the political development paradigm. According to Jayaweera (1987), these criticisms included:

- Development includes more than economic growth in a country, but requires equal distribution of wealth also.
- Promotion of political participation at the national and local levels, educational opportunities, civil liberties, as well as factors pertaining to quality of life, should also be important goals of development communication.
- The development communication paradigm tended to replicate the individualism and materialism of the Western society. Instead, communication campaigns should be conducted within the context of the culture, customs, and values of the people.

In reality, after a decade of heavy investment in the mass media infrastructures of developing nations, the results were mixed in the 1970s. In 1975, Sathre (1976) provided evidence that in the previous 10 years, the GNP in developing countries had increased more than 50 percent, exports to them were up 124 percent, nonagricultural employment had improved to 52 percent, and food production had grown to 30 percent, among other indicators. During the same period of time, mass media development had also significantly increased in these countries, including a 100 million more radio receivers (Schramm, 1976).

However, while overall economic development did increase in real terms, the gap between rich and poor countries grew, population rates continued to skyrocket, unemployment rose, and the quality of life indicators improved only for those of the highest socio-economic status (Melkote, 1991; Jayaweera & Amunugama, 1987). Moreover, economic development had not necessarily lead to political stability and democracy, as many of the newly created democracies during the 1960s were replaced by military dictatorships or one-party regimes (Wiarda, 1989-90). Lerner's (1967) explanation for these developments was that the "want/get" ratios among the populations of developing countries had become so disproportionate that the "revolution of rising expectations" predicted by the development communication paradigm had resulted instead in a "revolution of rising frustrations."

Some Methodological Considerations

Early studies of both the political development and develop communication paradigms were generally not adequate to test the hypothesized causal relationships among indicators (see Frey, 1973). Most had to utilize either cross-sectional data or time series of short duration, because organizations such as the World Bank and UNESCO had just begun compiling yearly development indicator statistics in the 1960s. Furthermore, statistical techniques for assessing causality among indicators were not yet highly developed, as well as the computer software and hardware necessary to perform them (see Schramm & Ruggels, 1967). Evidence from early studies of both paradigms, therefore, should be replicated, utilizing the greater variety of time series of longer duration now available.

Another consideration is the extent to which the evidence regarding the political development and communication development paradigms is historically bound. The studies of both paradigms conducted in the 1960-1970 era, when the development in most countries had been underway for only about a decade (Schramm & Lerner, 1976; Wiarda, 1989-90). Increases in economic and political development might well have lagged behind increases in these socioeconomic indicators by long periods of time. Moreover, both economic and political stability in developing countries might also take varying lengths of time to achieve, preceded by irregularly occurring periods of disruption. Only time-series data of long duration can be used to assess the lag between stimulus and response in this way.

More Recent Analyses

Surprisingly few macro-level studies, however, have been published regarding the political development and development communication paradigms after the 1970s. [3] Recently, however, the new struggling democracies in Eastern Europe and the introduction of new communication technologies with their economic and political implications have resulted in renewed interest in this area of research (see Jayaweera & Amunugama, 1987). Many of these studies have used considerably broadened conceptualizations of both economic and political development.

Political Development Studies

Fedderke and Klitgaard (1998) found that GDP per capita was associated with greater civil and political rights, when measured by a number of socioeconomic time series up to 25 years in length for as many as 118 countries. GDP per capita was also significantly associated with higher levels of education, greater likelihood of a market economy, a higher percentage of the population exposed to modernizing influences, and greater consumption of the news media. In a multivariate analysis, political rights proved to be the strongest predictor of per capita GDP. (News media consumption was not included in the multivariate analyses.)

Borner, Brunetti and Weder (1995) noted that most previous operationalizations of democracy in studies of economic development have focused on the existence or fairness of elections, competition among political parties, or the freedom of opposition groups to operate. But such dimensions of democracy, they argued, are of low relevance to investors in the economies of developing countries who are more concerned with the uncertainties posed by political instability in both democratic and authoritarian regimes.

Accordingly, Borner *et al.* designed a measure of political credibility to tap the degree of uncertainty arising from state actions. Entrepreneurs operating in developing countries were sent questionnaires asking them how regularly they had to cope with unexpected laws and policy changes and the extent to which governments stick to announced major policies in the countries in which they operated. Respondents indicated that these factors were more important in their investment decisions than high transaction costs or even corruption. In 10 developing countries, political credibility proved to be more highly correlated with economic growth than other frequently used measures of democracy.

Development Communication Studies

A number of studies have explored the relevance of telecommunication development to political and economic development. Using data from 45 countries, Hardy (1980) found that per capita GDP and the number of telephones per capita mutually influenced each other between 1960 and 1973, based on time-lagged offsets of one year. Similarly, Cronin, Parker, Colleran and Gold's (1991) analysis of 31 years of US data from 1958 through 1988 showed a two-way effect between telecommunications investment and overall economic growth, based on two-year lag intervals. Using data from 23 countries from 1975 to 1991 from several sources, Zhu's (1996) pooled time-series analysis showed that the previous year's telephone development but not radio or television was a significant predictor of GNP. But with a three-year lag, television and radio penetration also became significant predictors of GNP.

The Japanese *Johoka Shakai* approach to the study of development communication has taken into account the role of new media technology (see Dorick & Wang, 1993). As Ito (1980) described it, *johoka shakai* translated means "informationalized society," as opposed to *kogyoka shakai*, or "industrialized society." The *Johoka* Index was composed of a simple, summed index of indicators in four categories:

- amount of information (telephone calls per person per year, newspaper circulation, books read per 1000 people, and population density);
- distribution of communication media (telephone receivers per 100 people, radios and television sets per 100 households);
- quality of information activities (proportion of service workers in labor population and proportion of students in total appropriate age group;

- the information ratio of each country (a ratio of household expenditures for information-related activities to total expenditures)

The first analyses in the 1970s showed that each of the five major industrialized societies—US, Japan, UK, West Germany, and France—had significantly increased on all the *Johoka* Index measures between 1953 and 1975. While the United States was the most informationalized society throughout this period, Japan's growth, according to the *Johoka Index* measures, was steepest, resulting in the country being ranked No. 2 ahead of the United Kingdom, West Germany and France, respectively, by the late 1960s. Also, the information ratio index was highly correlated with per capita income in a broader sample of developed and developing nations.

Dorick and Wang (1993) argued that development communications has been replaced in this era by "development informationization." Using measures from measures the *Johoka* Index, the results showed that telephone and computer/data terminal penetration grew significantly between 1970 and 1980, but the rate of penetration was greater in richer than poorer countries. Differences in mass media penetration rates among nations were less dramatic compare to telecommunications, computers, and data terminals. While television and radio diffusion slowed in more developed countries in the 1970s, as they reached saturation levels, their penetration rates continued to grow in the less developed countries, with the exception of newspaper circulation per 1000 people.

Among the eight most highly industrialized nations, Dorick and Wang's analysis showed that by 1980 the information sectors constituted at least 40 percent of their work forces, while wide differences existed in this proportion among less wealthier nations. The average percentage contribution of the information sectors to the GDP per capita of wealthier nations rose from 43 percent in 1980 to 65 percent in 1988. A less impressive contribution by the information sector to GDP per capita was evidenced for middle-level countries, while none was apparent among those with the lowest incomes.

Factors for Further Study of Economic and Political Development

Taking into consideration both earlier and later studies of the political and development communication paradigms, a number of factors emerge that should be taken into account in future studies:

- Extensive time-series data, which are now available, are necessary to study adequately the influence of socioeconomic and communication indicators on economic and political development.
- Both economic growth and distribution of wealth should be included in development studies.
- Political development is a more complex variable than is indicated by voting participation rates. Not only the type of regime should be considered, but also whether the political system has regulations in place to maintain political stability.
- Both mass media and telecommunication development, such as access to computer technology, telephone lines, and international calls, should be compared in studies of political and economic development.

Hypotheses

Based on the analysis of evidence above, these hypotheses were tested:

H1: *Over a 32-year period, economic development will be significantly related to social, mass media, and telecommunication development indicators.*

Based on past studies, it is expected that economic development in general will be related to the social, mass media, and telecommunication development of a country (Sirowy & Inkeles, 1990; Fedderke & Klitgaard, 1998). However, comparisons will also be made among indicators of economic development level, economic growth, and income inequality. The economic growth and income inequality indicators may be less strongly related to social, mass media, and telecommunication development than overall level of economic development (Sirowy & Inkeles, 1990).

H2: *Over a 32-year time period, political development will be significantly related to social, mass media, and telecommunication development indicators.*

This hypothesis again predicts that relationships among these variables will replicate those found in earlier studies of political development (Lipset, 1959; Cutright, 1963). However, comparisons will be made between general regime type (degree of democratization) and the degree to which recruitment of chief executives and participation in the political process are regulated, as suggested by Borner, Brunetti & Weder (1995).

H3: *After controlling for the social development indicators, both mass media and telecommunication time series will significantly predict economic development indicators.*

Past studies have indicated that social development indicators—urbanization, school enrollment and literacy-are strongly correlated with mass media and telecommunication development (Lerner, 1958; Frey, 1973; Fedderke & Klitgaard, 1998; Hardy, 1980; Cronin, Parker, Colleran & Gold, 1991). Accordingly, to assess the independent contributions of mass media and telecommunication development, it is necessary to control for the social development indicators.

H4: *After controlling for the social development indicators, both mass media and telecommunication time series will significantly predict political development indicators.* Here again, to assess the independent contributions of mass media and telecommunication indicators, it is necessary to remove the correlated influences of social development indicators.

H5: *The political and economic time series indicators will be significantly related to one another.*

As described above, the evidence about how economic and political development might be related to one another is contradictory (See Frey, 1973; Wiarda, 1989-90). However, an examination of the interrelationships among a variety of economic and political development indicators is expected to provide some clarification to this issue.

Absent more definitive evidence, causal relationships among the political, economic, social, mass media, and telecommunication time series are expected to follow a pattern similar to that predicted by the Lerner (1958) model of development:

H6a: Urbanization will precede all other development time series.

H6b: Mass media, literacy, and the school enrollment time series will mutually influence other.

H6c: Increased literacy and school enrollment is expected to lead to greater telecommunication development.

H6d: The telecommunication time series are expect to have the most immediate direct effects on political and economic development..

H6e: The economic and political development time series will mutually influence one another.

Methodology

The data used in this analysis were drawn from two archives.

The social, mass media, telecommunication, and economic development time series were taken from the World Development Indicators on CD-ROM, which contains more than 500 indicators for up to 210 countries covering the years 1960-1996. When alternative indicators were available, the time series that adjusted for population size and were of the longest duration were chosen. In addition, the years from 1960-64 were deleted from the time series to minimize missing data.

Social Development Time Series:

- *Illiteracy:* Proportion of adults aged 15 and above who cannot with understanding read or write a short, simple statement on their everyday life.
- *School Enrollment:* Total number of pupils enrolled at the primary level in public and private schools.
- *Urbanization*: percentage of the total population living in areas defined as urban at midyear.

Mass Media Development Time Series:

- *Daily Newspapers*: Number of newspapers published at least four times per week per 1,000 people.
- *Radio Receivers*: Number of radio receivers per 1,000 people in use for broadcasts to the general public.
- *Television sets*: Number of sets in use per 1,000 people.

Telecommunication Development Time Series:

- *International Telephone Traffic*: Outgoing international telephone traffic in minutes per subscriber.
- *Telephone Mainlines*: Mainlines connecting a customer's equipment to the public telephone network per 1,000 people.
- *Computing Technology Imports*: Communications, computer, information, and other related services as a percentage of service imports.

Economic Development Time Series

- *Gross National Product per capita*: Gross national product divided by mid-year population.
- *Gross National Product Growth per capita*: Annual percentage growth in GNP per capita.
- *Income Inequality*: The Gini coefficient, which indicates the degree of income distribution within the population of the country (See Melkote, 1991). The higher the Gini coefficient, the greater income inequality.

Political Development Time Series

The time series indicators of political development were taken from the Polity98 Project: Regime Characteristics: 1800-1998.[4] This data set contains information from 1800-1998 on regime and authority characteristics for all independent nations, based on a coding scheme designed by Eckstein and Gurr (1975). In developing this data set, they were concerned with the state's authority pattern, or "the set of structures and processes through which directives applicable to members of the state are made, issued and supported," rather than simple voting rates (Gurr, 1974, p. 1483). Drawing on multiple historical sources for each country, authority characteristics and system change points were coded. The reliability and validity of these data have been assessed as substantial, based on opinions of country experts and comparisons with other related data sets.

Several time series from this data set were selected for use in this analysis:

Democracy Index: general openness of political institutions, based on a 10-point scale constructed by summing scores from these indicators:

a.) *Competitiveness of participation*: 1= factional, 2= transitional and 3=competitive.

b.) *Executive recruitment competition*: 1= dual executive sin which one is chosen by hereditary succession and the other in a competitive election or 2= competitive election between two or more parties or individuals.

c.) *Executive recruitment openness*: 1= heredity succession plus electoral selection of an effective chief minister or 2= open election.

d.) *Executive constraints*: 1= unlimited authority; 2= slight to moderate limitations; 3= substantial limitations; 4= executive parity or subordination.

The democracy index has been used in a number of previous studies (see Gurr, 1974) and is provided in the Polity98 Project data set. Cronbach's alpha coefficient for the index was .88.

Two additional measures of authority characteristics were included in the analysis, based on the research reviewed earlier indicating the multidimensional nature of political development (e.g., Borner, Brunetti, & Weder, 1995; Wiarda, 1989-90).[5]

Recruitment Regulation: degree to which executive recruitment is regulated through institutionalized procedures regarding the transfer of executive power:

1= changes in chief executive occur through forceful seizures of power.

2= chief executives are chosen by designation within the political elite without formal competition.

3= chief executives are determined by hereditary succession or in competitive elections.

Participation Regulation: degree to which institutional structures are developed for political expression:

1= fluid political participation without enduring national political organizations or systematic regime controls in political activity.

2= relatively stable and enduring political groups which compete for political influence at the national level, although competition among them is intense, hostile and frequently violent.

3= regular oscillation between intense factionalism and restriction with one group restricting its opponents power until it is displaced in turn.

4= some organized political participation is permitted without intense factionalism, but significant groups, issues and other types of conventional participation are regularly excluded from the political process.

5= stable and enduring political groups regularly compete for political influence with little use of coercion and no types of political action excluded from the process.

The World Bank and Polity98 Project data sets were merged, excluding countries that were included in one data set but not the other or which were not in existence throughout the 1965-1996 time period. (Appendix A shows the countries which were included in the data set after this procedure by region of the world.) As a result, a data set of 15 time series for 107 countries over a 32-year period was created. Missing data for time series extending throughout the 32-year period were replaced by predicted values from a regression of the existing series on an index variable scaled 1 to n. When the time series naturally did not exist throughout the 32-year period, such as for computer technology imports, then missing values were replaced with "0" until the series started, at which point they were replaced as in other cases.

Given this amount of data, a pooled cross-sectional time-series model was chosen for the analysis, in which the selected time series across T= 32 years for the N= 107 countries were combined, resulting in a data set with a total of 3,424 cases (107 countries x 32 years). Two important advantages of the pooled cross-sectional model are that it allows the N x T cases to be simultaneously analyzed with a single set of parameter estimates and the use of straightforward methods for handling autocorrelated disturbances, which result in biased and inconsistent estimators in panel models (Hannan & Young, 1977).

The Analysis Strategy

The pooled cross-sectional time-series model allows a number of statistical techniques to be used to test the causal relationships stated in the hypotheses. Most basically, the covariation between two time series can be assessed either on a bivariate basis or after controlling for the influence of other time series at T-0 or lagged using multiple regression analysis (see, for example, Smith, 1987; Trumbo, 1995). However, only *weak* causal inferences can be made from significant relationships among time series, in comparison with the *strong* causal inferences that can be made from laboratory experiments, based on this type of analysis. In fact, seasonal or periodic trends can result in spurious relationships emerging among time series (see, for example, McCleary and Hay, 1980). To create stationary time series, each was "whitened" by regressing it on year of observation and then using the resulting residuals in the analysis.[6] A preliminary regression analysis, which examined one- two and three-year lags, indicated that a one-year lag was sufficient to capture the influence of past history on future values of most of the time series.[7] In the multivariate analyses, the T-0 time series, therefore, were regressed on T-1 values of the independent values in the equation, again allowing for weak causal interpretations of results.

Results

The results shown in Table 1 below provide some support for Hypothesis 1 that economic development would be related over time to the social, mass media, and telecommunication indicators. Over the 32-year period from 1965-96, the T-0 newspaper, radio and television time series strongly covaried with GNP per capita and to a lesser extent with GNP growth per capita and income inequality. Among the telecommunication time series, however, only telephone mainlines per capita was consistently correlated with the three economic development indicators over time, most strongly with GNP per capita. The social time series were only weakly related to economic development indicators, with the exception of the relationship between urbanization and GNP per capita.

Table 1

Correlations Among T-0 Economic, Social, Mass Media, and Telecommunication Time Series

	GNP per capita	GNP Growth per capita	Income Inequality
School Enrollment	-.09**	.10**	-.03
Percent Illiterate	-.06**	-.01	-.04
Percent Urbanized	.51**	.02	-.02
Newspapers	.31**	.04*	-.05**
Radios	.53**	.05**	-.10**
TVs	.65**	.07**	-.14
International Phone Traffic	-.01	.00	.00
Telephone Mainlines	.76**	.07**	-.13**
Computer Technology Imports	.05**	-.01	-.06

Note: N=3424. Negative correlations indicate lower levels of income inequality, based on the Gini coefficient.
*p< .05; **p< .01.

The results shown in Table 2 below support Hypothesis 2 that political development indicators in a country would significantly covary with the social, mass media and telecommunication time series between 1965 and 1996. As with the economic development indicators, newspapers, radios, and TVs per 1,000 people in the 107 countries were substantially related to the democracy index, recruitment regulation, and participation regulation. While the international telephone traffic per subscriber and the percentage of computing technology imports were only slightly related to the three democracy time series over time, telephone mainlines per 1000 people quite strongly covaried with them. Among the social time series, only degree of urbanization was strongly and consistently related to the three democratic indicator time series.

Table 2
Correlations Among T-0 Political, Social, Mass Media, and Telecommunication Series

	Democracy Index	Recruitment Regulation	Participation Regulation
School Enrollment	-.02	.00	-.03
Percent Illiterate	-.13**	-.10**	.02
Percent Urbanized	.43	.38**	.44**
Newspapers	.19**	.12**	.14**
Radios	.43**	.31**	.28**
TVs	.47**	.38**	.36**
International Phone Traffic	-.03	-.04*	-.03
Telephone Mainlines	.55**	.38**	.42**
Computer Technology Imports	-.11**	-.02	.10**

Note. N= 3424.
*p< .05; **-< .01

Table 3 below shows the outcome of a regression analysis designed to test Hypothesis 3 that both the T-1 mass media and telecommunication time series will significantly predict the T-0 economic development indicators, beyond the influence of the T-social development indicators. In this analysis, the significance of the variance accounted for in the economic development indicators by the social, mass media, and telecommunication blocks was tested against the variance accounted for by the other two blocks in the equation.

Not surprisingly, given the size of the sample (N= 3424), even small increments to the overall R^2 values in each equation by the mass media and telecommunication blocks were significant. However, from a practical perspective, only the T-1 telecommunication block substantially predicted T-0 GNP per capita, beyond the influence of the social development and mass media time series blocks, primarily because of the contribution of telephone lines per 1,000. The T-1 mass media and telecommunication blocks only marginally contributed to the variance explained over time in variations in the T-0 GNP growth per capita and income inequality time series. Therefore, Hypothesis 3 is partially supported in regard to the three measures of economic development.

Table 3.
Standardized Coefficients from Regression of T-0 Economic Development Indicators on T-1 Social, Mass Media, and Telecommunication Time Series

	GNP per capita	GNP Growth per capita	Income Inequality
School Enrollment	-.01	.10**	-.05**
Percent Illiterate	.05**	-.02	-.07**
Percent Urbanized	.19**	-.03	.06**
Increment to R^2	.024**	.011**	.010**
Newspapers	.04**	.01	-.03
Radios	.03	.00	.01
TVs	.03	.07*	-.13**
Increment to R^2	.002*	.001*	.005**
International Phone Traffic	.01	-.02	.00
Telephone Mainlines	.62**	.03	-.06*
Computer Technology Imports	.05**	.02	-.05*
Increment to R^2	.113**	.001	.004*
Total R^2	.603**	.017**	.033**

Note. N= 3424. Increments to R^2 are the amount of variance added by the block of variables to the total variance explained by the other two blocks of variables. Negative correlations indicate lower levels of income inequality, based on the Gini coefficient.
*p< .05; **p< .01.

Based on the same analysis procedure, the results shown below in Table 4 support Hypothesis 4 that mass media and telecommunication indicators would significantly predict the political development time series, after controlling for the social development indicators. Each of the T-1 mass media and telecommunication time series blocks significantly contributed to the variance in the T-0 democracy index, recruitment regulation, and participation regulation over the 32 year period of this study. However, the T-

1 telecommunications block explained more variance over time in each of the T-0 indicators of political development than the mass media block, primarily because of the contribution of telephone mainlines per 1,000 people.

Table 4

Standardized Coefficients from Regression of T-0 Political Development Indicators on T-1 Social, Mass Media and Telecommunication Time Series

	Democracy Index	Recruitment Regulation	Participation Regulation
School Enrollment	.04	.05**	-.05**
Percent Illiterate	-.03	-.01	.04**
Percent Urbanized	.23**	.23**	-.13**
Increment to R^2	.039**	.040**	.015**
Newspapers	-.03*	-.03	.01
Radios	.08**	.02	.02
TVs	-.02	.13**	.10**
Increment to R^2	.004*	.007**	.006**
International Telephone Traffic	-.01	-.03	.01
Telephone Mainlines	.40**	.15**	.39**
Computer Technology Imports	-.11**	-.03	.11**
Increment to R^2	.045**	.009**	.049**
Total R^2	.355**	.203**	.206**

Note. N= 3424. Increments to R^2 are the amount of variance added by the block of variables to the total variance explained by the other two blocks of variables.
*$p < .05$; **$p < .01$

The correlations shown in Table 5 below provide some support for Hypothesis 5 that the democracy and economic development time series would be positively related to one another. GNP per capita is significantly related to the democracy index, recruitment regulation, and participation regulation. Considerably smaller correlations are evident between GNP growth per capita and the Gini coefficient of income inequality and the three indicators of political development.

Table 5

Correlations Among T-0 Political and Economic Development Time Series

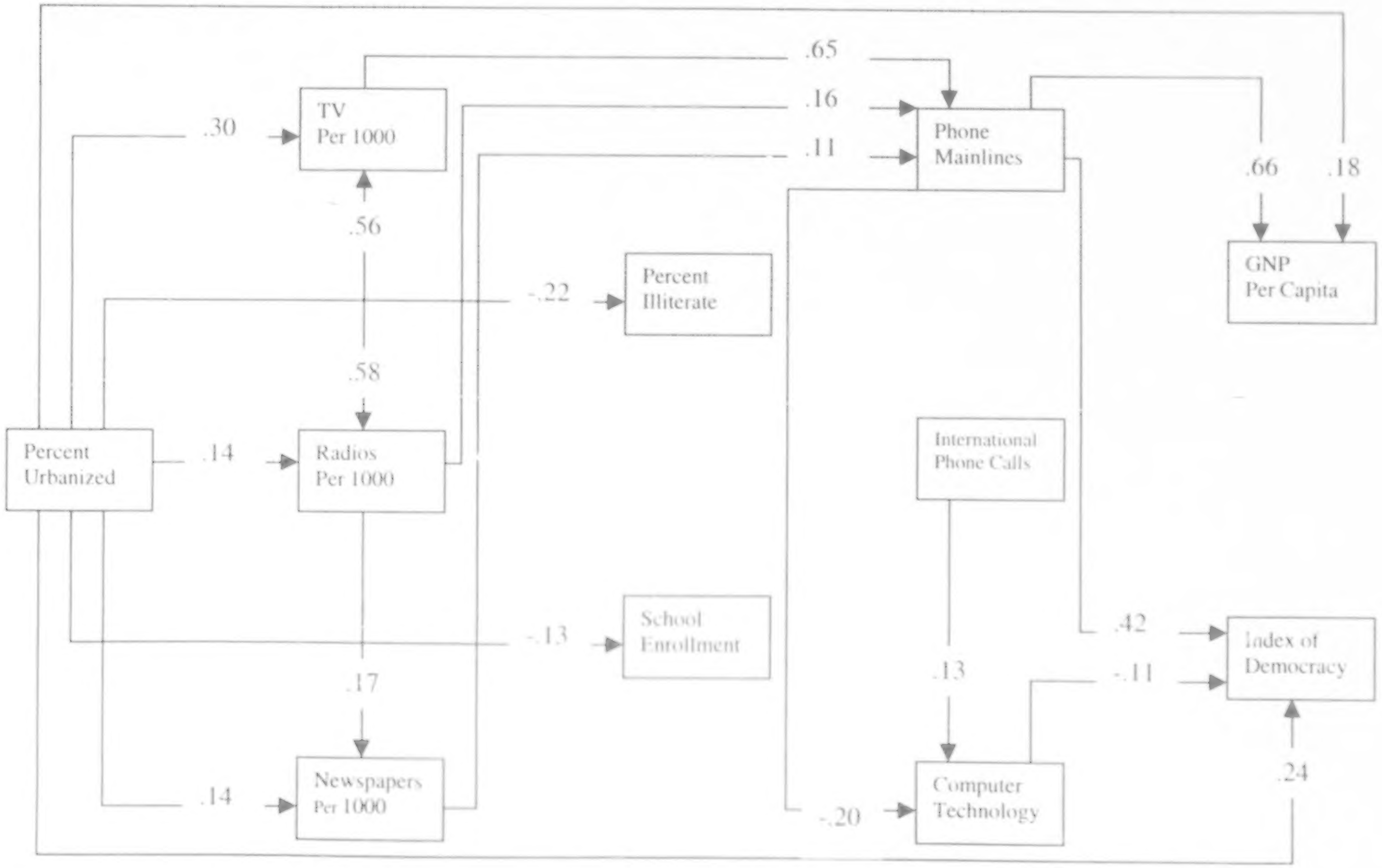
	Democracy Index	Recruitment Regulation	Participation Recruitment
GNP per capita	.46**	.39**	.47**
GNP Growth per capita	.05**	.04**	.02
Income Inequality	-.02	-.01	-.11**

Note. N= 3424. Negative correlations indicate lower levels of income inequality, based on the Genie Index.
*p<.05; **p<.01

Path Analysis

A modified form of path analysis was used to provide a comprehensive picture of the overall pattern of causal relations among the time series. Among the indicators of economic and political development, only the democracy index and GNP per capita were included to simply the path analysis, because they exhibited the strongest relationships with the social, mass media, and telecommunication development indicators. To calculate the standardized path coefficients, the T-0 values of each dependent variable at each stage were regressed on T-1 lagged values of the time series hypothesized to be cotemporaneous or precede the dependent variable in the regression. Among time series hypothesized to mutually influence each other in the same time period, two way influence can be assessed.[8] Figure 1 on the next page provides the outcome of this procedure.

Starting from the left-hand sign of the diagram, there is some support for hypothesis 6a that urbanization would precede other types of development. Most striking, urbanization directly predicts all of the other development indicators, with the exception of the three telecommunication time series. Urbanization, however, indirectly predicts telephone mainlines per capita through each of the three mass media time series, most strongly through television sets per 1000.



.65
.16
.11
.30
TV
Per 1000
Phone
Mainlines
.66
.18
.56
GNP
Per Capita
-.22
Percent
Illiterate
.58
Percent
Urbanized
.14
Radios
Per 1000
International
Phone Calls
-.13
School
Enrollment
.42
Index of
Democracy
.17
.13
-.11
.24
.14
Newspapers
Per 1000
-.20
Computer
Technology

Figure 1. *Path Analysis of Causal Relationships Among Development Indicators*

Note: Only paths for coefficents significant at least at the p< .05 level are shown.

The results in Figure 1 do not provide evidence that literacy, school enrollment and the three mass media time series would mutually influence each other, as predicted in hypothesis 6b. In fact, no direct or indirect paths emerged between any of the mass media development time series and literacy or school enrollment. Also, contrary to hypothesis 6c, the literacy and school enrollment time series do not directly or indirectly predict any of the telecommunication time series.

As predicted in hypothesis 6d, telephone mainlines per capita has a substantial direct influence on both GNP per capita and the democracy index time series. Computer technology imports also significantly but inversely predicts the democracy index. International telephone calls, however, is not related to either GNP per capita or the democracy index.

Finally, the analysis indicated no causal relationships between the GNP per capita and democracy index time series, when controlling for the other time series, contrary to expectations. When both the T-0 GNP per capita and the democracy index time series were regressed on thee T-1 values of all other development time series, the substantial bivariate relationships between the two, which were shown in Table 5, dropped to near zero.

Discussion

This study analyzed the influences of social, mass media, and telecommunication time series on economic and political development in 107 nations from 1965-1996. As such, it attempted to replicate the findings of previous studies of the political development and development communication paradigms, using time series of longer duration and statistical methods not available for earlier studies. The results suggest a number of conclusions.

Mass media development, as measured by newspapers, radio sets, and television sets per 1,000 people, exhibited stronger causal relationships with both economic and political development than social and telecommunication development. Among the social and telecommunication development time series, only urbanization and telephone mainlines per capita were consistently related to economic and political development. These results, therefore, are supportive of the central role given to mass media in the development communication paradigm (Frey, 1973).

However, the strong relationships between telephone mainlines per capita and economic and political development confirm the results of recent studies regarding the importance of telecommunication (e.g., Cronin, Parker, Colleran, & Gold, 1991; Hardy, 1980). These results suggest the importance of improving technology to increase interpersonal communication in developing countries. That international telephone traffic per subscriber and computer technology imports were unrelated to economic and political development, at least during the time period of this study, may be because both are costly and thus not available yet to large portions of the populations in the countries studied.

Neither percent of population illiterate nor school enrollment, key factors in Lerner's (1958) theory of modernization, were substantially related to any of the indicators of economic and political development. The path analysis also did not show that these time series were causally related to either the mass media or telecommunication time series, as predicted by the Lerner model. Earlier studies showing relationships among literacy, education, mass media, economic and political indicators may be limited by the historical era in which they were conducted or by a focus on a particular region (Lerner, 1958; Schramm, 1964; Frey, 1973).[9] Possibly the wide dissemination of electronic mass media and some telecommunication technologies today, even in less developed countries, has resulted in literacy and education being less important factors now than in the past in the process of economic and political development.

Supporting criticisms described earlier of the political development and development communication paradigms, the results of this study indicated that none of the social development indicators were strongly related to the Gini coefficient of income inequality. Newspaper, radio, and television sets per 1,000 and telephone mainlines per capita were significantly but not strongly related to lower levels of the Gini coefficient of income inequality in the countries included in this study. On the other hand, the social, mass media, and telecommunication time series were more consistently and strongly related to GNP per capita. At least during the period of this study, therefore, the "trickle down" effect predicted to result from strong general economic growth has not occurred to any great extent.

In regard to political development, however, urbanization, the three indicators of mass media development, as well as telephone mainlines per 1,000, were consistently and quite strongly related to a general index of democracy and degree of regulation of the recruitment leaders and participation in the political process. Moreover, all three measures of democracy were substantially related to GNP per capita over the 32 years of this study. Unlike the conditional results of previous studies, therefore, the evidence from this one indicates a strong relationship between economic and political development, as measured by these indicators (e.g., see Sirowy & Inkeles, 1990).

Some Suggestions for Future Research

The primary focus of this first analysis of this data set was exploring some of general relationships among development indicators posited in the political development and economic development paradigms. However, a number of contingent factors affecting the development process need to be explored in future studies. First, evidence suggests that the causal relationships among development indicators may vary across historical eras (Jayaweera & Amunugama, 1987). Second, these causal relationships may also differ from one region of the world to the next (e.g., Farace, 1967). Third, comparisons should be made between more and less developed countries before the general patterns indicated in this study can be confirmed (e.g., Jayaweera & Amunugama, 1994; Melkote, 1991).

Conclusion

Perhaps the most intriguing finding of this study is that telephone mainlines per capita was a stronger predictor of economic and political development than other telecommunication or mass media development time series. This result indicates the importance of interpersonal communication in the economic and political development process, which diffusion research has demonstrated at the individual-level unit of analysis. (Rogers, 1976). Future macro-level analyses should explore relationships between the development of technology that accelerates interpersonal communication and mass media development.

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Notes

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[1] See Schramm (1976). The media development standards set by UNESCO were100 newspapers, 50 radio receivers, 20 television sets and 20 cinema seats per 1,000 people.

[2] Interestingly, Lipset (1959) did not mention the large differences on the levels of mass media indicators between regime types in his description of the results.

[3] Research on diffusion of innovations is, of course, directly concerned with economic and political development. (Rogers, 1976). But this study is focused primarily on economic and political development at the macro level.

[4] Jaggers, Keith, and Ted Robert Gurr. Polity III: Regime Change and Political Authority, 1800-1994 [Computer file]. 2nd ICPSR version. Boulder, CO: Keith Jaggers/College Park, MD: Ted Robert Gurr [producers], 1995. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 1996. Any opinions, findings, and conclusions or recommendations expressed in these materials are those of the author and do not necessarily reflect those of the ICPSR.

[5] The Polity98 Project data set contains these variables: democracy score, autocracy score, executive recruitment regulation, executive recruitment competition, executive recruitment openness, monocratism, executive constraints, regulation of participation, competitiveness of participation, and centralization of state authority. The democracy

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and autocracy scores were highly correlated (.90+). Furthermore, democracy was also highly correlated (.90+) with all other indicators, except regulation of participation (.08) and executive recruitment regulation (.12).

[6] Trumbo (1995) and Brosius and Kepplinger (1990) have used this procedure. Differencing is the most commonly used technique to whiten time series. But then the focus of the analysis is changed to examining degree of change from year to year. In practice, the results of this analysis differed when non-whitened or whitened time series were used.

[7] The appropriate lag lengths to use in such analyses needs further research. The lag times between changes in social, mass media, and telecommunication indicators and subsequent economic and political responses are likely to vary according to a variety of factors.

[8] Granger analysis can produce stronger causal evidence (See Smith, 1987 or Trumbo, 1995) . According to this technique, a variable X is said to cause Y, if Y is better predicted from the past histories (as indicated by lagged values) of Y and X together than Y alone. Mutual influence is indicated when both Y and X are better predicted by their past histories and those of each other than alone. But Granger analysis only allows two variables to be compared at a time, which is not practical when testing relationships among a large set of variables.

[9] It should be noted that Lerner (1958, p. 63) predicted that once 25percent urbanization is reached, it "ceases to play a determinant role because enough people have been relocated in cities to assure the personnel requirements of modern production."

Appendix A

Appendix A

Countries in Data Set

Western Hemisphere

Argentina
Bolivia
Brazil

Canada
Chile
Colombia
Costa Rica
Cuba
Dominican Republic
Ecuador
Guadeloupe
Haiti
Jamaica
Mexico
Nicaragua
Panama
Paraguay
Peru
Trinidad and Tobago
United States
Uruguay
Venezuela

Europe

Albania
Austria
Belgium
Bulgaria
Cyprus
Denmark
Estonia
Finland
France
Greece
Hungary
Ireland
Italy
Latvia
Luxembourg
Norway
Poland
Portugal
Romania
Russian Federation
Slovak Republic
Spain
Sweden
Switzerland
Yugoslavia
Africa

Benin
Cameroon
Central Africa
Chad
Gabon

Ghana
Ethiopia
Guinea
Kenya
Liberia
Madagascar
Mali
Mauritania
Morocco
Niger
Nigeria
Rwanda
Senegal
Sierra Leone
Tanzania
Tunisia
Uganda
Zambia
Zimbabwe

Middle East

Algeria
Burundi
Egypt
Islamic Republic of Iran
Iraq
Israel
Jordan
Kuwait
Lebanon
Libya
Oman
Saudi Arabia
Turkey
Yemen Arab Republic

Asia

Afghanistan
Bhutan
Cambodia
China
India
Indonesia
Japan
Democratic Republic of Korea
Republic of Korea
Laos
Lithuania
Malaysia
Mongolia
Myanmar
Nepal

Pakistan
Philippines
Thailand
Singapore
Somalia
South Africa

Oceania

New Zealand

Internet Use and Media Preferences of College Students

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ABSTRACT

Internet Use and Media Preferences of College Students

A survey of 400 at a midwest university shows students are frequent readers of their campus newspaper, but are unlikely to access any online newspaper. Students are likely to use the Internet for e-mail, information searches or reference and research materials, and spend an average of 92 minutes per day online. They seek information and use the Internet as replacement for the library, postal service and telephone. Recommendations for online newspapers include enhancing their local franchise online, bringing greater interactivity to their editorial and advertising content, and providing seamless access to their archives.

Dramatic increases in access and usage have made the Internet a household word in the few years since the first graphical Web browser was commercially released in 1993. The number of Americans who own computers increased from 36 percent to 43 percent between 1995 and 1998, and the number who go online nearly tripled from 14 percent to 41 percent. (Pew, 1998a).

Newspaper companies have joined the scramble online based on a belief that they could reverse circulation declines by building a new base of young and computer-savvy readers while reducing production and distribution costs; develop new advertising revenue potential; and protect their advertising base (particularly classified ads) from a twin threat: the computer's innate ability to quickly sort and search massive data bases and the point-and-click technology that connects buyers to products.

Newspaper circulations have been declining for three decades, especially among young adults whose readership habits are starkly different from their older counterparts. Research conducted by the Pew Research Center for the People & the Press found that only 26 percent of 18-24 year-olds read a newspaper, spending only about nine minutes a day with it. (Pew, 1998b). Ominously, another study found that 43 percent of the 16-29 year-olds say they could "get along easily" without newspapers. (Yankelovich, 1996).

The increasingly ubiquitous presence of newspapers online notwithstanding, we know relatively little about what it takes to successfully attract the elusive young reader. Little systematic analysis has been done on how this computer-savvy generation uses the Internet and online newspapers. This research describes the Internet use and other media use by 400 college students at a midwestern university as reported in April 1999. The research objective is to help establish a baseline record of Internet use, online newspaper use and other media use by college-age adults as a method of determining how online newspapers can meet the needs of this important demographic group. The results of a survey of college students and their use of the traditional and online newspapers, other media and the Internet are presented. Responses to open-ended questions about information-seeking behaviors among these college students also are presented. Finally, implications for how newspapers and online newspapers can meet the needs of this important demographic are discussed.

Literature Review

The growth in use of the Internet has been well-documented. By 1998, 12 percent of Americans, or 22 million people, accessed the Internet every day, an increase from 3 percent in 1995. Forty-one percent reported being online for up to an hour a day, 30 percent said they spent more than an hour online and 29 percent were online 30 minutes a day or less. (Pew, 1998a).

College students and adolescents are even more wired. Jupiter Communications reported in 1999 that 85 percent of all college students and 75 percent of all adolescents use the Internet (Makulowich), exceeding Internet use by any other demographic group.

This technically savvy demographic group also has relatively abundant campus resources, making computers and Internet access pervasive:

> "It's not unusual for 80 percent of the student population to have their own computers. Some campuses are starting to require that students bring a PC with them when they start school. More and more college dorms have Ethernet connections supporting fast Internet access wired into every room. Libraries,

> student unions, classroom buildings and dorms typically have computer clusters where students can use PCs to access the Internet. Nearly every major campus has a computer center where the PC-less can go check their e-mail." (Outing, 1998).

According to Student Monitor, a research firm, college students will spend $105 billion in 2000, making them a critical group for newspaper advertisers. While only $700 million of that will be spent online, Jupiter Communications predicts that by 2002 college students will spend more than $4 billion online annually. (Horovitz, 1999).

Meanwhile, growth in the number of U.S. newspapers online also has been dramatic - from 20 in 1994 to 2,059 in mid-1997 (Meyer, 1998), and more than 250 college publications have launched on the Web since *The Tech* at the Massachusetts Institute of Technology led the way. (King, 1997).

It could be expected that college students would, indeed, be the new technically oriented readership that newspaper companies had hoped would support online editions and online advertisers. But Weir examined patterns of adoption for electronic newspapers and found that "usage of the electronic newspapers is not correlated with use of the Internet (or) knowledge and experience with computers." And despite the assumption that college students strive to try new products and be among the first to do things, Weir found that innovativeness does not significantly predict online newspaper usage, leading to the "presumption that such new media products are not considered to be cutting-edge technologies as much as more efficient sources of news and information by the people who use them." (1999).

In other words, college students are unlikely to discover value in newspapers just because the content traditionally presented on news print is presented on a computer screen and delivered over high-speed connections. Online content is in the process of changing, but will it be enough to attract a younger audience?

What Do Online Newspapers Offer?

Pavlik says online news content is evolving through three stages: The first stage involves repurposing print newspaper content for the online edition. In stage two, content is augmented with hyperlinks, interactive features such as search engines, and some customization of what news the user receives. Stage three is characterized by the creation of original content designed specifically for the medium. (Pavlik, 1997).

But from the earliest days of the Web, new media analysts have criticized newspaper companies for failing to rid themselves of the "print" mentality and, thus, failing to utilize the unique attributes of the new medium.

Outing (1999) writes that "while an increasing number of news sites have a serious commitment to online-original material, the majority still rely mostly on wire service copy and repackaged content from traditional media, with a modest amount of original content thrown into the mix."

Katz has called newspapers the "biggest and saddest losers in the information revolution. With the possible exception of network-TV newscasts, papers are now our least hip medium, relentlessly one-way, not-interactive, and smug." (1994)

Indeed, the *Christian Science Monitor*'s online editor Tom Regan believes that using the technology to connect with users will keep them returning (Lynch, 1998). Regan says "Interactivity is the 'magic bullet' that papers have been searching for since circulation began to drop in the '60s." (Regan, 1997).

Interactivity allows the users to link with related stories and relevant sites, original source material, audio/visual materials, online discussion groups and archives. Unlike traditional news media, online newspapers offer links that allow users to create their own news story.

Given what experts call this "non-linear" method of storytelling, some predict the online future will belong to newspaper sites with the search engines that most efficiently facilitate users' access to archives and linking to external information resources. Writing in *Wired Magazine*, Paul Saffo says:

> "The future belongs to neither the conduit or the content players, but those who control the filtering, searching, and sense-making tools we rely on to navigate through the expanses of cyberspace...A decade ago, the network with the best shows won; soon it will be the provider with the best agent who comes out on top." (1997).

How Do Young Adults Use the Internet?

According to pollster Louis Harris & Associates, the top six reasons Americans use the Internet are: Research, gathering information on goods and services, sending e-mail, purchasing consumer goods, surfing for goods and services, and news and weather updates. (2000).

The Internet appears to be a growing source of news for every demographic group, including college-age adults. Thirty percent of those 18-29 report going online to get news at least once a week, up from 7 percent in 1995 (Pew, 1998b), although the sources of news are not necessarily online newspapers. Users between the ages of 18 and 24 account for 10.9 percent of the users of online newspapers, according to a 1999 *Editor & Publisher* survey. (Strupp, 1999).

Fully "100 percent" of the class of 2003 uses the Internet to send e-mail, with research for course work ranking second, according to a 10-member panel of college students at *Editor & Publisher's* 2000 Interactive Newspaper conference. Other uses, they said, include searching for jobs, finding local entertainment news, making travel arrangements, shopping and surfing. Use of the Internet for accessing online newspapers was conspicuously absent, although several said they occasionally access their hometown newspapers on the Web.

Newspaper companies are well advised to target this technically literate population that has nearly universal and free access to the Internet at a critical stage in their transition to adulthood. While a variety of Internet uses ranging from downloading music to plagiarizing term papers have been discussed in the popular press, too little is known about how this audience utilizes the Internet. *Understanding utilization is a critical step if newspaper companies are to develop online services that can attract and, more importantly, retain this critical population.*

Given this context, this study addresses the following research questions: With what frequency do these college students read traditional newspapers and online newspapers? How much time do they spend with various media and how does that compare with other activities? For what functions or content areas do they utilize the Internet? What can be learned from their information-seeking behaviors?

Methodology

The data for this study were collected from April 5 through April 16, 1999, by students enrolled in a mass communications research methods course at a midwestern state university. A random sample of 800 was drawn from a current list of 18,581 undergraduate and graduate students provided by the university registrar's office.

The 143-item telephone survey was administered by 80 undergraduate students under faculty and graduate student supervision. All calls were made from school of journalism offices between the hours of 4 and 10 p.m. Every effort was made to reach the students selected for the sample. Interviewers made at least five -- and in some cases as many as 12 -- call-backs over at least three nights. They also attempted to contact potential respondents by e-mail who were unreachable to attempt to schedule an appointment to conduct the telephone interview. Interviewers also used city directories and directory assistance to find new numbers for students who were no longer at the telephone number provided by the registrar. Only after these attempts failed did the researchers drop a potential respondent. In spite of these efforts, 209 students from the original sample were either no longer students, or were never directly contacted, most often because there was no working number available, or they were never at home when interviewers called.

Interviewers completed 400 surveys from the original sample of 800 for an overall response rate of 50 percent. The adjusted response rate based on only those students who were actually contacted was 67.7 percent.

This omnibus survey, which took an average of 20 minutes to complete, consisted of questions pertaining to media preferences, opinions about college radio stations, newspaper readership and Internet use. Only a portion of the items are used for this study. Demographic measures included age, gender, education (year in school),employment and ethnicity.

Findings

The average age of the 400 respondents to the questionnaire was 21.6 years; 48.8

percent were male and 51.2 percent were female. Seventeen percent of respondents were freshman, 19 percent were sophomores, 20 percent were juniors and 32 percent were seniors; the remaining 12 percent were graduate students (8 percent master's students, 4 percent doctoral students). Fifty-five percent of students reported that they are currently employed. Of those, they reported working an average of 13 hours each week.

A lack of diversity on this particular college campus is reflected in the ethnicity of respondents, which is fairly representative of enrollment. [1] The sample was predominantly white (86 percent), with 3.3 percent Asian, 2 percent African American, 1 percent Hispanic, 1 percent mixed race and 0.3 percent Native American. Six percent refused to identify themselves by race.

Newspaper Readership

Student respondents reported overwhelmingly that they read their campus student newspaper -- indeed, fully 93.8 percent responded "yes" to the question: *do you ever read [The Student Newspaper]?* Of those, 43.6 percent said they read it **daily**, 36.1 percent read it **a couple of times each week**, and 17 percent read it **occasionally**.

As Table 1 shows, newspaper readership dropped precipitously when respondents were asked about readership of the local daily newspaper, other state newspapers, national newspapers (such as *USA Today* and *The Wall Street Journal*), and online versions of their campus or other newspapers.

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[1] An enrollment summary by ethnic group provided for the fall of 1998 (the most recent prior semester for which data were available) by the university registrar's office indicated 92 percent of students were white, 2.9 percent were African American, 2.3 percent were Hispanic/Mexican American, 1.4 percent were Asian American, 0.4 percent were multi-racial, and 0.8 percent were Native American.

TABLE 1 ABOUT HERE

The local daily newspaper, with a circulation of about 10,781 daily and 12,339 Sundays[2], serves a mid-size community with a population of 37,712, according to 1990 U.S. Census figures. Only 29 percent of student respondents reported ever reading the local daily, and of those, just 13.8 percent said they read it daily, 24.1 percent read it a couple of times each week, and 62 percent read it occasionally.

Respondents did report reading other state newspapers with greater frequency. Fifty-nine percent said they do read some other state newspaper. When asked to name which newspaper, most reported one of the three major dailies from nearby cities which are generally circulated in the local area. A few mentioned hometown daily newspapers. Of all these, only 17.8 reported they read any other state newspaper on a daily basis, with 32 percent reporting they read another paper weekly, and 50.2 percent said they read one occasionally.

National newspapers were read by 27.8 percent of respondents, who responded "yes" to the question, "Do you ever read a national newspaper like *USA Today* or *The Wall Street Journal?*" Only 4.5 percent of those do so daily, with 23.2 percent reporting they read a national paper weekly, and 72.3 percent reporting they read one occasionally.

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[2] Bacon's Newspaper Directory 1999, Chicago: Bacon's Information Inc., 1999.

Although there was nearly universal readership of the traditional version of their campus newspaper, only 18.5 percent of these respondents report they ever read the online version of their campus daily. Of these, only 4.3 percent read it daily, 14.3 read it a couple of times each week, and 81.4 percent read it occasionally.

When researchers asked about readership of any other online newspaper, 80 percent of student respondents said "no," they do not ever read an online newspaper. Of the few who did (20.3 percent), 11.6 percent read an online paper daily, 31.9 percent read one weekly, and 56.5 percent read an online newspaper occasionally.

Time Spent With Media & Other Activities

These results indicate that students interviewed for this study do not regularly read traditional or online newspapers -- with the important exception of their attention to the traditional campus newspaper. We were also interested to know specifically the relative time they allot to both newspaper readership, consumption of other media (both traditional and online), and other obvious college student activities like studying and going to class.

To that end, we asked respondents: *"Thinking back over just the last 24 hours, can you tell me about how much time you've spent doing the following things?"* A list of activities followed and interviewers recorded the time indicated by respondents. The reader should note that the sum of the mean time spent in each activity about which we inquired does not equal 24 hours, as many could be done simultaneously (listening to the radio and studying, for example).

As Table 2 shows, college students in our sample reported that they spend more time sleeping than any other single activity we inquired about. In activities that consumed more than 2 hours on average each day, students averaged 6 hours 43 minutes *sleeping*, 3 hours 25 minutes *going to class*, 2 hours 49 minutes *studying*, 2 hours 12 minutes *working*, and 2 hours 9 minutes *watching broadcast or cable television* each day.

TABLE 2 ABOUT HERE

These students also spent time consuming or interacting with other media besides television. Our results indicate that these students spent an average of 1 hour 55 minutes *listening to the radio*, 1 hour 53 minutes *listening to music from a tape or a CD*, and 1 hour 4 minutes *reading a book*.

In activities that consumed less than one hour on average each day, *using the Internet* consumed 54 minutes on average, *using your e-mail account* took 38 minutes on average, and *watching a videotape* took 31 minutes on average. These students also reported spending an average of 27 minutes *reading a newspaper*, 14 minutes *reading a magazine*, 13 minutes *playing a video game*, and 4 minutes average *watching a movie in a theater*.

Internet Uses

We now know that college students in our sample spent an average of 54 minutes using the Internet, but how are they engaged there? We asked a series of questions to find out how frequently they access the Internet for a variety of functions and to seek information on a range of topics.

TABLE 3 ABOUT HERE

We asked respondents to indicate the degree of frequency with which they used the Internet for a variety of functions. Table 3 shows these results, both by mean scores as generated by a 4-point scale (where 4 = frequently, 3 = occasionally, 2 = rarely and 1 = never), and the overall percentage of respondents who identified each option. Mean scores were highest for *your e-mail account* ($\bar{x}$ = 3.6), *a search for information* ($\bar{x}$ = 3.5) and *reference or research material* ($\bar{x}$ = 3.4). Indeed, 81 percent of the sample reported frequently using their e-mail account, 61 percent frequently search for information, and 47.8 percent use the Internet frequently for reference or research materials.

Students were less likely to report frequent use of the Internet for functions like *a job search* ($\bar{x}$ = 2.0), *shopping* ($\bar{x}$ = 1.7), *chat or personals* ($\bar{x}$ = 1.7), or *games* ($\bar{x}$ = 1.6). In fact, nearly 50 percent or more of them reported they **never** used the Internet for any of these functions.

We also inquired about topics for which information might be sought on the Internet. These ranged from *education* ($\bar{x}$ = 2.8) to *adult content* ($\bar{x}$ = 1.4). Although we suspect that respondents may have misunderstood our query about education as a topic, responding instead to education as a function, we note that *news and media* were near the top in terms of frequency ($\bar{x}$ = 2.6). In addition, student respondents sought information with less frequency on other topic areas traditionally a part of conventional and on-line newspapers. These include (in descending order): *entertainment* ($\bar{x} = 2.4$), *recreation and sports* ($\bar{x} = 2.4$), *weather* ($\bar{x} = 2.3$), *travel* ($\bar{x} = 2.3$), *computing and technology* ($\bar{x} = 2.0$), *politics and government* ($\bar{x} = 1.8$), *health and fitness* ($\bar{x} = 1.8$), *personal finance and stocks* ($\bar{x} = 1.6$), *family and children* ($\bar{x} = 1.5$), and *religion* ($\bar{x} = 1.4$).

Again, it is worth noting that nearly half or more of respondents indicate that they **never** seek information on the Internet for such topics as *computing and technology* (46.8 percent), *politics and government* (52.5 percent), *health and fitness* (53.3 percent), *personal finance and stocks* (64.3), *family and children* (68.7), *religion* (74.0 percent) and *adult content* (74.3 percent). The placement of these topics might be considered an indicator of their importance (or unimportance) to college-age students, or in some cases, we may suspect some response bias due to the telephone collection of data and the nature of the topics (especially adult content and possibly religion).

Relative Value of Channels of Communication

Our final area of interest in college students media use was inquiry about their use of various channels of communication -- both mediated and direct, mass and interpersonal -- when seeking information on a number of routine issues that arise in everyday life. Our interest was to discover which channel of communication they might choose, and to discover how prominently the Internet may figure in their selections.

Interviewers asked a series of six open-ended questions about "*what you would probably do*" to accomplish the following things, including how would you: *1) find out what movies are playing at the local movie theaters; 2) make a reservation for an airline flight or a hotel; 3) wish a friend in another state a "happy birthday"; 4) check the weather for the next five* *days in the [local] area; 5) find out if classes are canceled if we have a heavy snowfall; and 6) learn the results of a state-wide election, such as for governor or U.S. Senator?*

Responses were recorded verbatim on the questionnaires and categorized later into one of the following: newspaper, radio, television, Internet, telephone, direct contact with a friend, and several other categories specific to individual questions.

As Table 4 shows, the **telephone** was the first choice for respondents when communicating for the first three of these questions.

Most respondents said they would use the phone to find out about *local theater listings* (51.9 percent), with **newspapers** (35.6 percent) the second most popular answer.[3] Using the **telephone** was the most frequent answer in response to *making an airline or hotel reservation* (49.6 percent) with the **Internet** mentioned by 29.3 percent of respondents. Another 17.3 percent said they would go to a **travel agent**. When we asked how they would *send birthday greetings to a friend*, 45.1 percent said the **telephone**, with 30.1 percent reporting they would use the **Internet** to say "happy birthday." Another 18.8 percent said they would send such greetings by **mail**.

The traditional mass medium, **television** , was the most frequent first choice for *checking the local weather*, although 26.1 percent said they would turn to the **Internet** for that information. To *learn if class was canceled due to snow*, most respondents said they would listen to the **radio,** although 15.8 percent indicated they **didn't know** how they would learn such information. Finally, **television** was the first choice for *learning the results of a statewide election*, with 22.6 percent of respondents reporting they would seek such information from a **newspaper**. Only 6.5 reported they would turn to the **Internet**, where such information would most likely be found at an online newspaper site.

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[3] The reader should note that a monopoly exists in theater ownership in this particular midwest college community, the result of which is that display ads for films seldom, if ever, appear in the local newspaper. A listing of films and show times runs daily in the local newspaper in agate type, but such ads are not placed in the campus student newspaper. Theaters do provide a "movie line" accessed by telephone listing films and show times.The preference for the telephone in this case surely reflects this odd situation.

Discussion

We know from research conducted by the Pew Research Center for the People & the Press, that only 26 percent of 18-24 year-olds read a newspaper daily and they spend only nine minutes with it. Results of our study indicate significantly higher newspaper readership among college students. Additional analysis of results reported in Table 2 suggests that 73 percent of respondents in this study did, indeed, read a newspaper daily, spending an average of 27 minutes with it. What accounts for the discrepancy?

Clearly our respondents are heavy users of their campus newspaper. That heavy readership is certainly reflected in the amount of time they spend reading a newspaper daily. We should note that this college newspaper wins consistent national acclaim and is widely available throughout the campus and community. Although it is supported by student fees, it is distributed like a free publication. The newspaper is heavily geared toward advertisements for services of interest to college students, such as tanning salons and 2-for-1 specials. We know that a major reason young people turn to newspapers is to find advertising geared to them. (Dalton 1996). Newspaper readership of fairly high frequency is not unknown among this age group, which suggests readership can be significant when an editorial product is either geared to the interests if its intended audience, freely accessible or both.

It's the Content, Stupid

With nearly universal access to computers on campus, online newspapers are equally as free and accessible. One might expect similar reading patterns and media use behaviors from this technically savvy population, yet our respondents showed little interest in reading online newspapers. The accessibility of online papers is high, the use of the Internet for a variety of functions is significant, yet online newspaper readership is nearly non-existent.

This leads to the logical assumption that *the content* must not appeal to this audience. As Weir suggests, they are disinterested in reading traditional newspaper content online. Instead, they tend to use the Internet more heavily for functions that are not traditionally associated with newspapers, such as sending e-mail. Yet, almost half report frequently going to the Internet for reference or research materials. Where specifically are they going? We did not investigate specific news-oriented sites where respondents seek such information. Clearly, further research is necessary to determine where these young adults go online to find information that is traditionally the purview of newspapers.

We have observed, based on the data collected here, that these young people are using the Internet for many functions traditionally associated with the postal service, the library and the telephone. Can newspapers afford to ignore this online trend?

Based on these results, we make the following recommendations to enable online newspapers to develop content that better attracts this demographic group.

- **More Local Content:** Newspapers should capitalize on their traditional strengths of covering the local community and providing access to the good and services available there. Editorial and advertising content areas of interest to young people must be expanded. Despite the global nature of the medium, the greatest need for information appears to be in support of day-to-day activities that are geographically bound. No national news organization will ever provide information about local band gigs or weather-related school closings.
- **More Interactivity with Content**: Newspapers should develop interactivity as an integral component to both editorial and advertising content. Examples range from printer-friendly news pages that can be easily e-mailed to friends to having the football coach available for online discussion. We agree that the future of online news organizations lies in their ability to encourage and sustain discussion among communities of interest. Newspaper may have to shed their traditional approach to appeal to this younger group. As Katz has suggested, enhancing the traditional newspaper with value-added features that make it more interactive could provide long-term loyalty among the technically savvy.
- **Seamless Access to Archival Content:** Newspapers should provide seamless access to their archival and reference material coupled with links to external information sources. Search engines should be easily accessible and straightforward. As Saffo suggests, the future belongs to those with searching and "sense-making tools."

Where Do We Go From Here?

By establishing this baseline of college students' use of Internet, media and online newspapers, we have a place to start in better understanding their information seeking, newspaper readership and interactive communication on the Internet. We targeted this group not just because they were available, but because their access to newspapers, computers and the Internet is essentially free and universal. That circumstance is unique today, but is the direction in which Internet use is headed for the general population. Additionally, the media use patterns of these young adults are being established during their college years, and we might anticipate these patterns to hold as this cohort matures. The implications of their media consumption habits are thus significant for the newspaper industry in the future.

We can learn much from their media use behaviors that can be used to enhance the readership of online newspapers. Thus, we believe our recommendations for developing functions of greater interactivity and providing more news and advertising content that appeals to young people are necessary if online newspapers are to attract and retain the younger audience.

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Table 1

Frequency of readership for traditional and on-line newspapers (N = 400)

	Percent who read at all[1]	Frequency of Reading[2]		
TRADITIONAL NEWSPAPERS		Daily	Weekly	Occasionally
Campus newspaper	93.8 (N=375)	43.6	36.1	17.0
Local newspaper	29.0 (N=116)	13.8	24.1	62.1
Other state newspaper	59.0 (N=225)	17.8	32.0	50.2
National newspaper	27.8 (N=112)	4.5	23.2	72.3
ONLINE NEWSPAPERS				
On-line version of campus newspaper	18.5 (N= 74)	4.3	14.3	81.4
Any other on-line newspaper	20.3 (N= 69)	11.6	31.9	56.5

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[1] Question wording: Now, I want to ask about the specific media you use. Do you ever read [named paper or options as listed in table above]?

[2] [If yes] Would you say you read it: daily; a couple times each week; occasionally?

Table 2

Time spent daily by college students with various media and in other activities[1] (Mean scores in hours and minutes) (N=400)

Activity	Time Spent
Sleeping	6 hours 43 minutes
Going to class	3 hours 25 minutes
Studying	2 hours 49 minutes
Working	2 hours 12 minutes
Watching broadcast or cable television	2 hours 9 minutes
Listening to the radio	1 hour 55 minutes
Listening to music from a tape or a CD	1 hour 53 minutes
Reading a book	1 hour 4 minutes
Using the Internet	54 minutes
Using your e-mail account	38 minutes
Watching a videotape	31 minutes
Reading a newspaper	27 minutes
Reading a magazine	14 minutes
Playing a video game	13 minutes
Watching a movie in a theater	4 minutes

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[1] Question wording: "Thinking back over just the last 24 hours, can you tell me about how much time you've spent doing the following things?

Table 3

Mean scores and percent of Internet use for various functions/topics (N = 400)

	Mean*	Percents			
FUNCTIONS[1]		Frequently	Occasionally	Rarely	Never
Your e-mail account	3.6	81.0	8.1	3.0	7.3
A search for information	3.5	61.0	32.3	5.5	1.0
Reference or research materials	3.4	47.8	45.3	5.0	1.8
A job search	2.0	10.0	24.3	18.8	46.6
Shopping	1.7	3.3	21.5	18.7	56.3
Chat or personals	1.7	8.3	14.3	14.0	63.0
Games	1.6	7.0	12.0	14.3	66.2
TOPICS[2]					
Education	2.8	30.8	32.5	20.0	16.5
News and media	2.6	19.8	42.8	16.3	21.0
Entertainment	2.4	18.0	30.3	25.5	26.0
Recreation and sports	2.4	17.0	34.5	18.8	29.0
Weather	2.3	15.5	33.8	11.3	39.3
Travel	2.3	9.8	40.8	19.8	29.3
Computing and technology	2.0	11.5	24.0	17.3	46.8
Politics and government	1.8	7.3	20.0	19.8	52.5
Health and fitness	1.8	4.5	22.5	19.3	53.3
Personal finance and stocks	1.6	6.8	14.5	14.0	64.3
Family and children	1.5	3.0	8.3	19.0	68.7
Religion	1.4	1.8	9.5	14.3	74.0
Adult content	1.4	1.8	8.3	15.3	74.3

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[1] Question wording: Next let's turn to some additional questions about the Internet. I want to ask how often you use the Internet to access different things. Please tell me if you frequently, occasionally, rarely or never access the Internet for:

[2] Question wording: And how frequently do you look for information on the Internet about the following things:

*Means scores based on 4-point scale where 4 = frequently, 3 = occasionally, 2 = rarely, and 1 = never.

Table 4

Percent of first responses to open-ended questions[1] about information-seeking behaviors (N = 400)

	NP	Radio	TV	Internet	Phone	Friend	DK	Other
Find local theater:	35.6	.3	.8	3.8	51.9	2.2	1.3	4.3*
Make air reservation:	-	-	-	29.3	49.6	-	1.5	17.3**
Say happy birthday:	-	-	-	30.1	45.1	-	1.0	18.8***
Check local weather:	5.0	3.8	56.5	26.1	6.8	-	1.3	-
See if class canceled:	1.8	36.5	15.1	9.8	12.8	4.5	15.8	-
Learn election results:	22.6	10.6	57.3	6.5	1.0	-	1.3	-

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[1] Question wording: "Now I want to turn to some questions that ask what you would probably do in different situations where you have several options to choose from in your daily life. How would you: a. find out what movies are playing at the local movie theaters; b. make a reservation for an airline flight or a hotel; c. wish a friend in another state a "happy birthday"; d. check the weather for the next five days in the [local] area; e. find out if classes are canceled if we have a heavy snowfall; f. learn the results of a state-wide election, such as for governor or U.S. Senator?

*Billboard or marquee
**Travel agent
***Send by mail

BEST COPY AVAILABLE